amphitrichus

Ranunculus (Rivularis) (River Buttercup)

1966	Oct 15th	Flowering in drain along Calligree Sth Rd.
1967	Oct 22nd	" " A.P.M. Bush.
1970	Jan 24th	" at Wulgulmerang. along creek.
	Oct 11th	" at Heyfield.
1972	Aug 27th	" " Mr Arapiles
1994	Oct 30	" " Dawson R'way Reserve
1995	Dec 12	Growing " Railway Reserve near Traralgon
1997	Jan 18th	" under the water at Bentley's Plain.

It had no flowers so identification was difficult but I feel this is right. It certainly looked very nice covering the bed of the stream.

1999 Oct 23rd Growing in Gellion's Run swamp area.

Ranunculus collinus (Strawberry)

1969 Nov 23rd Flowering at Mt Baw Baw along the roadside. leaves glossy dark green with three lobes and each lobed toothed at top. Similar to strawberry leaf only much smaller. Flowers about ½" across bright yellow with petals widely spaced. These specimens had 5 petals.

1970 Jan 2nd Flowering at Tamboritha Saddle.

" 26th " at Wulgulmerang.

1971 Jan 17th " " Mt Useful.

" 30 " " Mt Howitt Hike

1992 Feb " " Mt St. Gwinear

1994 Jan 16th " " " "

1995 Jan 15th " " Dargo weekend.

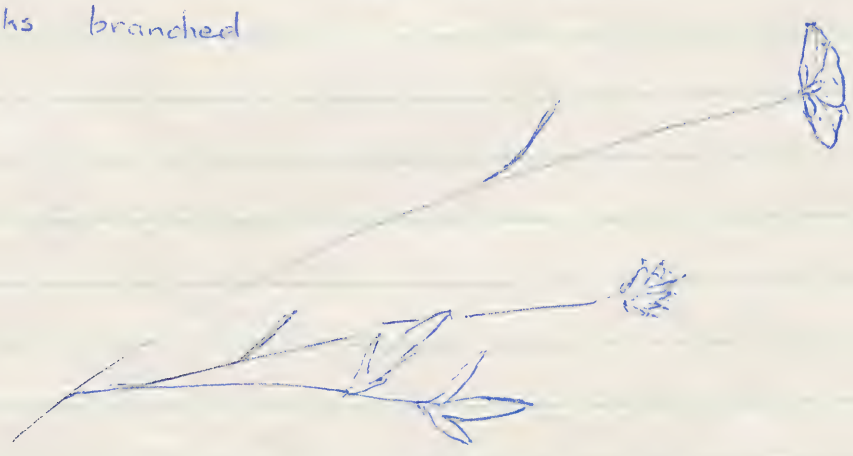
1996 " 20th " " Hotham "

Ranunculus eichleranus

1985 Nov 2nd Flowering in ~~co~~ roadside area near waterfall on Tamborintha Road.
One-flowered stems, leaf segments directed forward.
Identified by Jean Galbraith.

Ranunculus Graniticola

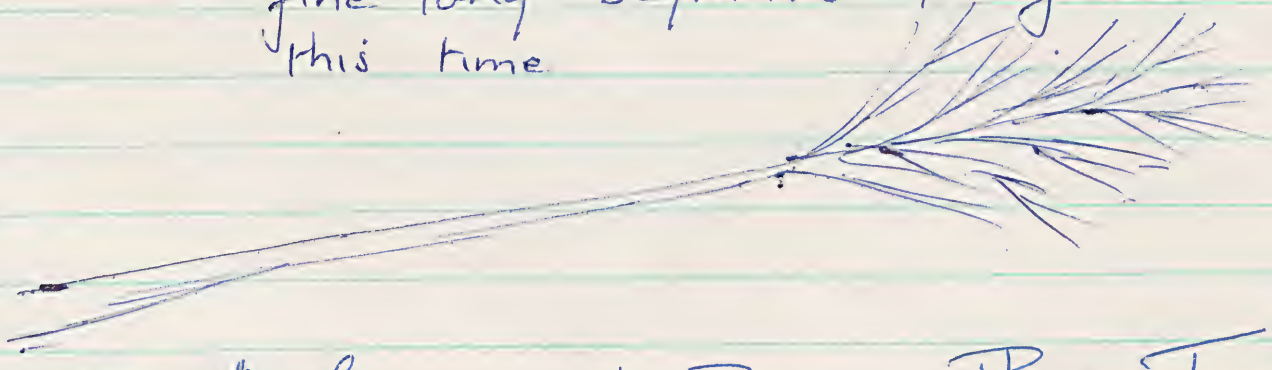
1971 Jan 30th. Flowering at Hoault Springs.
Softly hairy plant, bright yellow flower with broad petals. Leaves divided into 3-toothed lobes. Flower stalks and leaf stalks all long. Mr Willis suggested this identification but he did not seen the specimen.
Stalks branched



1974 Dec 7th. Flowering on Bennison Plains at Tamboritha.
Jan 29th " " Buckely Plains.
1992 Jan 25th " " " "
1994 Nov 9th " " Licola Weekend.
1995 Jan 15th " " Dargo "
1996 " 20th " " Hotham "
1997 " 18 " " Mt Baldhead.
1999 " 23rd " " Cielantipy weekend. Identified from specimen brought back.

Ranunculus gunnianus Tufted.

1971 Jan 30 Plants growing at Howitt Springs. Leaves on long stems about 4" long and then leaf much dissected into fine long segments. No flowers at this time.



1994 Dec 7th Flowering at Bennison Plains - Tamboritha
1994 Jan 16th " " Mr. Sr. Gwinear.

Ranunculus inundatus.

1976 Nov. 4th Flowering along the unmade road at Rosedale 5th. leaves fairly fine, flowers with 5 petals. Glabrous between the achenes and I would think there is a circle of stiff hair at the base in the staminal zone but do not know if it is a dense circle. Specimens to Dr. Parsons & Miss H Aston. Dr Parson's agreed with identification

1994 Oct 30 Growing in Dawson Water Reserve.

2003. In Muelleria Vol 17 2003. R. amplus is described. It differs from R. inundatus with large sized leaves & achenes, larger & usually more numerous petals, receptacle shortly pilose among the achenes & usually straight achene beak. Distribution includes Yarram

Buttercup at Yallourn Path – West Gully. 4/11/89.

No flowers so hard to identify.

Plant does not appear stoloniferous even though root is enlarged.

Leaves palmate, stems hairy with spreading hairs. Five segments to each leaf with each segment divided into 3 lobes & those further divided.

Leaves not all basal

[illegible] R. [illegible]

R

Common (Buttercup)

Ranunculus Lappaceus.

1966 Sept 9th Flowering Clark's Rd.
1967 Sept 24 " " "
1968 Oct 13th " at Flynn
27th " Reid's Corner
1970 Sept 19th " "
26 " among pines at Longford.
1971 Jan 30th " at Hewitt Springs.

Softly hairy plant, bright yellow flower with broad petals. Leaves divided into 3 toothed lobes. Flower stalks and leaf stalks all long. Mr Willis says this is R. graniticola.

Aug 28th Flowering at Wildflower Sanctuary at Strawell
1974 Dec 7th " " Bennison Plains - Tamboritha.
1994 Nov 1. " " Casuarina Reserve Fulham
Nov 9th " " Licola weekend.
1995 Dec 12th " " Railway Reserve near Traralgon
2004 Oct 23rd " " Holey Plains on track around Harriers Swamp. Very dry conditions

Ranunculus millianii — Dwarf Buttercup.

1970 Jan 24th — Flowering at Rocky Plains at Wulgulmerang. Tiny flower less than ½" across with round cream petals. leaves almost grass-like, so dissected. lovely little plant.

1971 Jan 30 — Mr. H. Morrison reports this plant for Mr Hewitt Weekend.

1974 Dec. — Flowering at Bennison Plains at Tamboritha

1985 Nov 2 — " near Waterfall at Tamboritha. Flower so low as to be amongst the leaves.

1992 Jan 26 — Flowering on Bogong High Plains near track to Cope Hut.

1995 Jan 15 — Flowering on Dargo weekend.

1996 " 20 " " " Hotham "

1997 " 18 " " Bentley's Plain.

Ranunculus muricatus Sharp Buttercup

2003 Apr. 14th Plant growing in mud at the edge of the reservoir in the Traralgon Railway Reservoir Reserve. I cannot be sure of identification as plant not in flower, but growth habit looks like Ranunculus & leaf shape is very like illustration & description in Flora of Victoria Ed. 3 P. 45. In our small specimen the leaves are 1cm long & 1.5cm wide. The lower leaves were not as deeply lobed as the upper ones. Andrew Pajet has this species on his list for the area.

A real dense rosette but very flat, only about 1 cm high.
Some leaves deeply lobed with quite stout stems

pimpernellifolius
~~potentillifolia~~
Ranunculus ~~parviflorus~~ Small-flowered Buttercup.

1971 Jan 30. Flowering at Howitt Springs.
Small hairy plants, leaves app. 2" long including stem which is long and hairy. Leaves dissected & then 3 lobed with long straight hairs on both surfaces.

Flower stalks, single, unbranched 3" long hairy with perhaps one small linear bract halfway. Flower small app. 1/4" across five narrow petals, sepals in between, very green centre with yellow stamens around. Sepals hairy. Tufted plant. The fact that the plant is so hairy is a lead to its identification. Miss Galbraith identified it.

1974 Dec 7th Flowering at Bennison Plains - Tamboritha.
1993 Jan 31 " in marshy area in Errinundra NP.
1997 " 18 " " Bentley's Plain.

Ranunculus plebeius Hairy

1970 Jan 24th Flowering at Rocky Plains at Wulgulmerang
Sepals of flower very hairy & inclined to reflex. Petals yellow but red on backs. about 1" across. Stem & leaves hairy.
Stem about 1ft high but rather weak.
Flower head soon drooped.

1972 Jan 31st Flowering at Mt Howitt area.

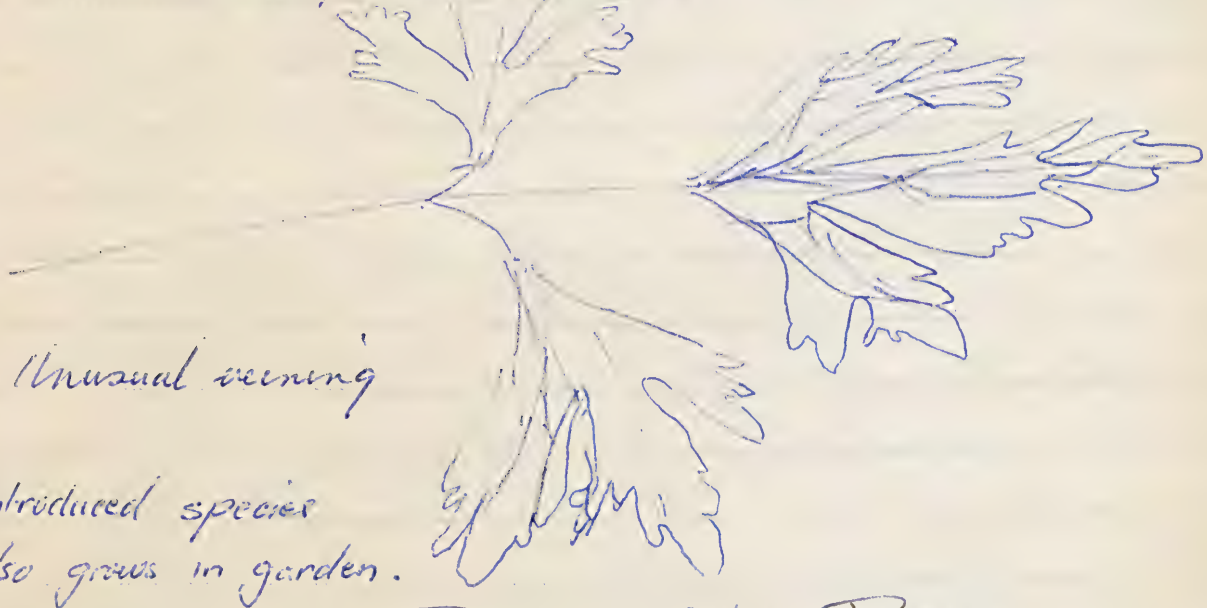
1994 Jan 16th " " Mt. St. Gwinear.

1998 Oct 20th " " Hotham weekend

1999 Jan 23rd " " Cielantipy weekend. Identified from specimen brought back.

*Ranunculus repens Creeping Buttercup.

1957 Nov 15th Flowering in Caldwell's gully at turnoff and along Downies lane.
Robust plant with few hairs. Stolons above the ground. leaves consisting of 3 leaflets which in turn are 3 lobed + the lobes further lobed. The centre lobe of leaf stalked.
Flowers over 1¼" wide, 5 petalled, petals very broad ○. Flowers on long stalks. fruiting body hemispherical, achenes glabrous with short, hooked beaks.



Unusual evening

Introduced species also grows in garden.

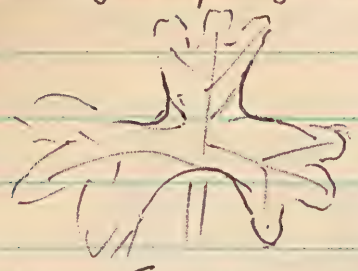
1995 Apr 12" Growing in Drouin Water Reserve.
1999 Oct 16" Flowering in Bonlac Welland Darnum.
2001 Dec 1 " " Sandy Ck, Bush, Newborough.

Ranunculus scapiger Sub-alpine Buttercup

1997 Jan 18th Flowering at Mt Nugong. This species was previously included in R. plebius but Willis mention R. scapigerus as a possible distinct species p. 150.

Ranunculus sceleratus Celery Buttercup

2004 Oct 2 Flowering at Heyfield Wetlands Semi-aquatic fleshy ± glabrous. Leaves glossy, basal + cauline.



Main stem of plant very like celery. Flowers small 5 petals - obovate - pedicellate. Plant over 2ft high.

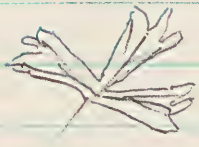
2005 Mch 8. Finally got verification of the above specimen from Herbarium.

Ranunculus sessiliflorus — Annual Buttercup. Australian Small-flowered Buttercup

1989 Nov 4th Plant with fruit growing in West Gully, Yallourn North. Very soft light green sprawling plant. Fruit sessile with 8 segments with relatively long beaks about ⅓ length of segment with tubercles on achenes.

leaves alternate with fruit at leaf bases

leaves semi-circular divided deeply into 3 sections & each section with 3 teeth, leaf stems long appp 1½" while leaf-blade ½"+ wide.



leaves with soft simple hairs esp. on back & edges of leaves.

1996 Oct 12th Flowering at Paradise Beach near 2nd pipeline in N.P.

Dec " " Railway Reservoir Conservation Reserve, Traralgon

Ranunculus victoriensis Victorian Buttercup.

1996 Jan 20th Recorded on Hotham weekend.

Rapanea howittiana (Turnipwood)

1990 Jan 4th Flowering in Miss Galbraith's garden. Miss Galbraith says the tree has been growing for quite a few years & flowered for first time last year. leaves smooth rather leathery shining oblong, edges slightly wavy. The flowers are white cup shaped with the edges like fringes, alternately up stalk from leaf base. On our specimen up to 8 flowers on stalk. ↑ Wrong identification This plant is Rhopaharis reticulatus.

Oct 17th Plant growing at Briagalong (ivf)

1991 Oct 23rd ~~Flowering~~ Plant in seed Morwell Nat. Park.

1984 Mch 28th Plant in full fruit on Hyndmers Road near Callignee. Fruit very heavy on branches very close together for up to a foot or more covering the branches all around. Slide. Fruit purple-blue.

1985 Jan 13. Checked out above plants and ~~can~~ saw ~~se~~ no flowers or fruit on the trees. It must be as we suspected that the trees do not fruit heavily every year. Ellen & Jean Galbraith have only seen one tree each in all their ramblings & travellings.

1993 Jan 31 Plants growing in Errinundra N.P.

1996 Aug 31 Jindivick Landcare area.

2003 Mar Recorded in Eel Hole Ck/Cemetery Conservation Reserve Management Plan.

*Raphanus Raphanistrum Wild Radish

1997 Nov 12th Flowering on Downies lane.

Key to BRASSICACEAE. Flora of Victoria Vol. 3 P.399

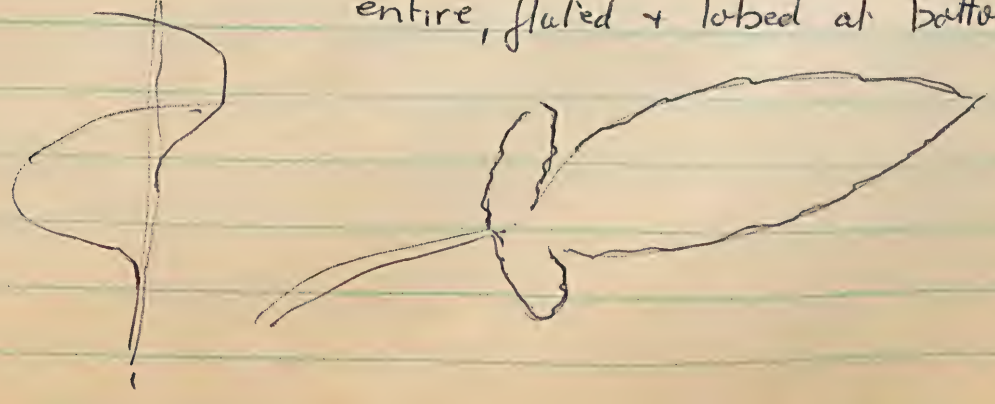
1. Inflorescence terminal or from leaf axis. 3.
3. Either Fruits with 1-2 fertile seeds goes to Raphanus 4
or " " 3 or more " " " " " 12
in our case the latter
12. Fruit at maturity not separating from middle wall but instead breaking into 1-2 seeded segments, etc. ~~#~~13
~~#~~13. Fruit breaking into 2-seeded segments.

Raphanus.

Key to ~~Raphanus~~ Brassica. See over page for Raphanus

1. Upper leaves on our specimen broad to stem-clasping at base 5.
5. Basal leaves hairy. base of stem leaves. clasped around at least half of the stem. filaments of outer stamens curved at base. 6.
6. Inflorescens with open flowers equalling or overtopping the buds, petals 6-11 mm long, bright yellow Brassica rapa.
~~R raphanistrum~~

Raphanus raphanistrum Petals have purple veins on them. Fruits seem to be curving up & back across the stem of flowering stalk. Petals pale yellow. Leaves with long stalks but entire, fluted & lobed at bottom



Key to Raphanus.

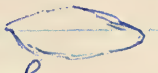
1. Fruit less than 8mm wide, markedly constricted between seeds, valve walls firm. 2

2. Fruit usually 3-4mm wide, readily breaking into 1-seeded units, beak narrowly conical 1-3 cm long.

R. raphanistrum

candolleana

Khagodia (baccata) (Seaberry Saltbush)

1967 June 19th Ot Eden on foreshore. Stiff bush with shiny bright green leaves above & lighter green below. leaves shaped  about 1" long & ½" wide. Flowers at end of branches. Flowers green tiny & inconspicuous, 5 petals. Berries rich red, flattened and lobed, 1 seeded. leaves stemmed approx 8mm. Berries and flowers in same cluster.

1968 Sept 3rd In flower at Gravel pits Cawarr. Flowers very tiny.

1970 Mch 7th Plants in berries at Waratah Bay. Berries red, on branched terminal clusters.

1992 Apr 25th Plants in berries in Nooramunga Coastal Reserve near Port Albert.

1996 Nov 23rd Plants in ~~Cat~~ Old Port Trail in Nooramunga Coastal Reserve

Rhodanthe anthemoides

(Helipterum anthemoides) Chamomile Sunray

1990 Jan 2nd Flowering at Tamboritha Saddle.

1991 Jan 30th In bud and almost in flower, probably closed because of wet weather. Growing at Hawitt Springs and on Mt Hawitt Hike Delicate plant with small greyish leaves.

1992 Jan 26th Flowering on Bogong High Plains

1995 Jan 15th " " Dargo weekend.

1996 " 20th " " Hotham "

1997 " 18th " " Mt Baldhead.

1999 " 23rd " " Gelantipy weekend. Identified from specimen brought back

Rhytidosporum procumbens
(Marianthus Procumbens)

1966 Sept 17th Flowering along Racecourse Rd Rosedale and in the reserve. leaves very crowded. Buds definitely purple. Flower 5 petalled with green ovary in centre and 5 stamens. Flower has star effect.

1967 Jan 14th Flowering in swamp area opp Waterlily pond Yallourn Nth.

~~Sept~~ 1st Sept 1st Flowering in Heyfield reserve. It was an erect form

16th " Flowering Racecourse Rd. Rosedale.

Nov 5th " Cowwarr

25 " Andersons Track.

1968 Sept 3rd Flowering near gravel pits at Stoney Creek Cowwarr.

28th " Flowering at Dalrson Downs.

Oct 13th " " Cowwarr.

20th " " Seninis Track.

Nov 3rd " Andersons Track

1969 Jan 1st " Seninis "

Aug 24th " at Glengarry North.

29th " profusely at Granite Rock

Sept 4th " at the Prom.

15th " at Rosedale.

Oct 4th " Cowwarr. Flowers + fruit.

1970 Jan 18th " Seninis Track. Erect form at Heyfield.

1969 Nov 2nd " Briagalong

1970 Jan 2nd " Burgans Gap.

Aug 23rd " at Rosedale → Holey Hill Trig TP.

Sept 5th " " " New Area

Oct 1 " new area Rosedale

Oct 11 " at Heyfield.

15th " " Briagalong

1971 Oct 10th " " Rosedale

1971 Sept 25th Flowering at Toronga Falls.
1972 Sept 10th " " Rosedale
1973 Aug 25th " " Boola Boola
1978 Jan Synonymous. Rhytidosporum procumbens
(D. McGillivray, Telopea 1 (1) 1975
[C. Beauglehole & R. Parsons]
1988 April Census of Vascular plants of Victoria – this plant is now Billardiera procumbens
1989 Sept 16 Flowering on Mt Elizabeth Road. These plants the erect form.
1993 July 27 Census of Victoria 4th Ed. 1993 Marianthus procumbens is now Rhytidosporum procumbens
1994 May 1 Growing on Austens property near Darlamurla.
1995 Oct 25th " " Manthaggi Heathlands.
Oct 25th " " Mt Heddrick.
1996 Sept 7th " " Tramway Rd near Churchill in Significant Roadside Area. (Ken Harris).
Nov 23rd " " Old Port Trail in Nooramunga Coastal Reserve.
2001 May 27th " " Newborough bush.
2006 Sept 30th " " Seneris Track
Nov 4 " " Springsure area.

Richea Continentis

1968 Jan 18th Flowering at Baw Baw. Also flowers at Erica + Bennison Plains. Stiff leaves pointed - sharp, tending to curve outwards. Would have thought leaves were about 4 to 5' long. Erect red stem with many white flowers (or perhaps cream). ~~Th~~ Flowers have little caps over petals; these fall off as flower opens. Flowers not very big but many on stalk particularly towards top. Last years flower stalks are still present erect, pointed, + very woody. Whole plant tough.

1971 Jan 30th Flowering at Howitt Springs, most of the plants however had finished flowering.

1972 Feb. Plants growing at Mt. St. Gwinear.

1973 Jan 26th Flowering at Mt Baw Baw.

1995 Jan 15th " " Dargo weekend

Muelleria Vol. 8 No3 1995 P. 317 A new species of Richea from Baw Baw Plateau + the Blue Range between Marysville + Taggerty. New species, R. victoriana has glabrous inflorescence, peduncle absent or almost so, older wood with prominent annular scars. Endemic to Victoria, R. victoriana inflorescence matures basipetally (from top to base) while R contentis matures acropetally (from base upwards)

Ricinocarpus Pinifolius (Wedding Bush)

1966 Sept 17th Plants quite plentiful along Racecourse Rd, Rosedale, however only a few flowers were open. Male flowers have petals but female are just clusters of dull red carpels. according to books.

Oct 8th Flowering beautifully in Tgon Sth Reserve.

Dec 4th Seeds on bushes almost like burrs only soft.

1967 Sept 23rd Flowering along Blackwarry - Gomandale Rd

Oct 22nd at Tigon Sth Reserve. Flowers suspected of being female flower all on one bush + male flowers on other bushes. Plenty of buds on all bushes. Buds red. Flower suspected of being female flower has centre similar to ovary right down in middle of petals. Male flower has ∆ centre sticking up high above petals.

Nov 4th Flowering at Wolfes. Great difficulty to find female flower but lots of male flowers

Female flower: Stem 18 mm long thick and gradually spreading to base of flower. Calyx petals 5 mm long cream marked with red + pointed. Many petals with red tips at back but no red on front. Petals irridescent + rounded at top. Centre round green ball below curve of petals. From centre of ball eight free lines (perhaps stigma) radiating in pairs ✳.

Because of short stem leaves stick up between petals. leaves 2.5 cm at top of stem. Complete flower 2 cm.

Male flower: Mostly 5 petals but some up to 8.

Flower on long stalk 3 cm long thin + not widening until last 2 mm. Calyx smaller than female flower 3 to 4 mm. Petals also red + cream no red on back except at very margin of some. Centre 4 mm high above centre of petals

at least 30 filaments attached to cone with thick stems giving very pimply effect. Filaments appear to be double or at least deeply grooved.
At Mr Wolfes where female flowers coarse many bushes had three male flowers flowering around a seed box about 1/3 cm diam. Does this mean male flowers last longer than female or does it mean male flowers on some bushes flower after female so that pollination is from another bush & not from same bush. As yet we have not been able to find both kinds of flowers in bloom on the same bush. There are not male & female bushes or the male flowers would not be around seed.

Nov 12th Suspect female flowers are mature (ready for pollination) before male flowers open but male flowers do last longer than female flowers. Bushes seen with only male flowers did not have one seed pod although there were plenty of male flowers on adjacent bushes. However bushes with female flowers & lots of buds do have male flowers now & seed boxes also. So pollination must be from same bush which suggests insects are not involved but rather wind moving the flowers. Found seed boxes at all stages. from 3mm across with dried sticky tip to the green ball 13 mm across. Of course the balls grow much bigger than this. Before the petals (dry) fall from the female flower little transparent protruberances commence to grow from the ovary. By the time the petals + sepals have fallen off these protruberances have increased in length & turned a deep red with a glistening nob at the top. As the ball grows the protruberances become

Ricinocarpus Pinifolius (cont)

longer & turn either green or almost transparent. The centre where the stigma grew is still visible when the ball is 13mm in diameter. Pollination must take place before protruberances commence to grow otherwise the female flowers alone on bush would not have just shrivelled up. Also although petals & sepals dried on this plant they did not fall off. Perhaps more pollination go continues after the petals are gone as little specs of pollen were visible on red protruberances under the microscope; otherwise why such a complete fall of petals & sepals on flowers producing seed boxes.

Nov 10th On observing female flower with 6 anthers still green with orange tips, the ovary although appearing smooth to the naked eye, when examined under microscope is covered with transparent or very pale green "pimples". Perhaps these 'pimples' are the beginnings of the protruberances. Found one seed ball on plant with all female flowers. This plant outside reserve. The plant near Cherry Ballart still has no seed balls, although lots of balls on surrounding shrubs with both flowers. Another reason for suggesting wind as pollination agent is because the female flower is considerably lower than male flower or is this so that insects will visit flowers in right sequence.

Female flower

Male flower with seed in middle

where petals + sepals have fallen.

female vertical Section

male vertical section

leaves are opposite, male flower stalks are opposite but all coming from one base with female flower. None seeds about this year but could it be season.

1968 June 16th First flower on wedding bushes in T'gon Sth reserve. Male flower.

Sept 28th Flowering Dutson Downs

Oct 20th Still flowering T'gon Sth Res.

1969 Sept 13th Flowering at Longford v Rosedale - Saw only Male flowers but could not say there were no female.

Sept 21st Flowering at Ciellondale

1970 Aug. 23rd A very few flowers on bushes at Rosedale.

Sept 13th Many flowers in bloom — bushes with male flowers in bloom + female flowers just in bud on same bush.

Ricinocarpus Pinifolius (cont)

1970 Sept 14th Flowering at Dutson Road
1971 Oct 3rd " " " "
" 10th " " T'gon Sth Reserve.
" 24th " at Reid's Corner.
1972 Sept 10th " " Rosedale
1976 Nov 7th " " Gifford Rifle Range.

* Romulea rosea var australis Onion Grass.

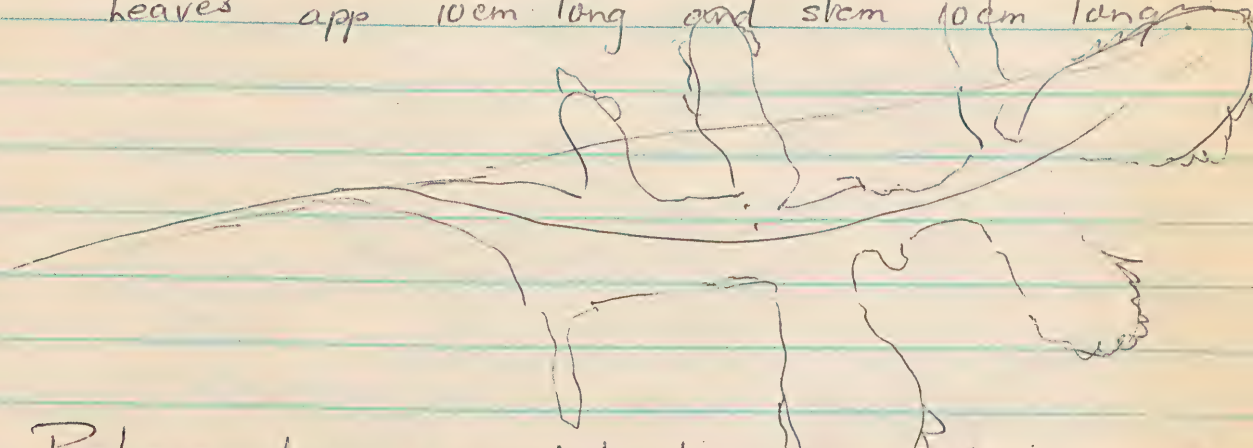
1994 Nov 26. Flowering in APM block Stradbroke Sth. Gipp. H'way
Nov 1 " " Casuarina Reserve Fulham
Oct 30 " " Dawson R'way Reserve.
1995 Oct 28th " " Wonthaggi Heathlands.
2001 Aug 27th " " Newborough bush.
Dec 1 " " " " Sandy Ck.

Rorippa dictyosperma Forest Bitter-cress

2000 Apr 11th Growing at Heyfield Wetland.

Rorippa laciniata Jagged Watercress

1991 May 24th. Flowering in Mt Cuumear, Mt Erica area on DCE excursion. Plant 40 cm long inclined to be decumbent. Leaves not present at this time of year but were present earlier about Christmas time before fruit was present. Leaves app 10cm long and stem 10cm long.



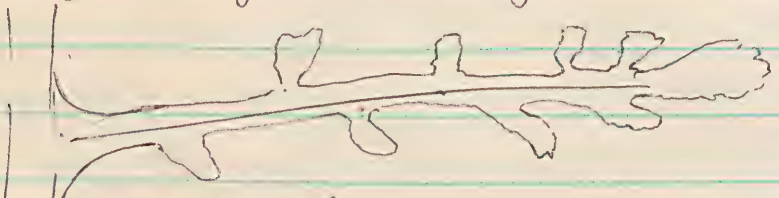
Perhaps drawing a bit larger in all dimensions. Petals white broad, yellow centre to flower, 4 stamens Petals oval shaped. Flowers in dense cluster.

Fruit long between 3 & 5 cm with beak 2-3 mm long. Seeds in single row, rather spongy looking under microscope. Fruit curved upwards, pedicels spreading about 1 cm long.

*

Rorippa. palustris Yellow Cress

1991 Feb 23rd Plants in fruit so were not able to say if yellow but suspect there could have been a very few yellow ones at end of racemes that we missed. Feel identification is correct as the siliqua is less than 10 mm long (about 6mm). It is contracted at the apex to a short style. Siliqua sausage-shaped with 2 rows of seeds. Leaves much divided but segments joined along main rib + not separated



Pedicle of siliqua spreading almost to the horizontal.

February excursion to Lake Coleman, Sale Common, etc.

1991 Apr 13 Flowering on unmade road near Wilson's property at Willung South.

1994 Nov 16 Beginning to flower on flat after flood. (Flat at home)

2000 Apr 11 Flowering at Heyfield Wetland.

*.

Rosa rubiginosa Sweet Briar

1994 Oct. 30 Recorded in Dawson R'way Reserve.
1996 Jan 20" " " Hotham weekend.

(hillii) O'land bramble
moluccanus
✓ rosifolius rose-leaf "
✓ parvifolius small-leaf "
phoenicolasius Wine Raspberry
✓ idaeus Raspberry
✓ laciniatus Cut-leaf Bramble
(rosaceus) erythrops Blackberry
✓ vestitus "
✓ polycanthemus "
✓ cissburiensis "
(discolor) anglocandicans "
(chloocladus) anglocandicans "
✓ ulmifolius "

In Flora of Vic

2007

gunnianus T.
queenslandica Q
probus Q
ellipticus Q NSW
novus Q NSW Vic
roribaccus NSW Vic
philadelphicus T NSW
laudatus WA
~~erythrops~~
echinatus J
phoenicolasius SA NSW
leightonii NSW
leucostachys all southern states
~~anglocandicans~~
riddelsdellii SA
rubritinctus SA
moorei Q NSW
nebulosus Q NSW
alceifolius Q
rugosus NSW Vic
~~moluccanus~~
loganobaccus WA, NSW, Vic SA T.

In Blackberry Paper

Rubus (hillii) moluccanus-var tribolus

1993 Jan 30 Growing & fruiting in gully between Club Terrace & Combienbar.

2003 June (Name change in 7th ed. of Census

Rubus hillii Queensland Bramble

1993 Jan 30 Growing in gully between Club Terrace and Combienbar.

Rubus parvifolius — Small-leaf Bramble

1995 Apr 12th Growing in Drouin Water Reserve
1996 Jan 20th " " Hotham weekend.
Dec " " Railway Reservoir Conservation Reserve, Traralgon.
1997 Apr 5th " " AFM Reserve — Grand Ridge Rd.
2002 Nov 30th " " Toongabbie Wetland.

Rulingia prostrata

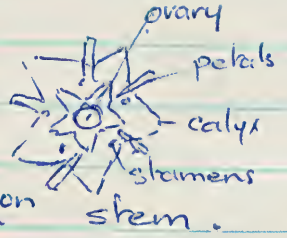
1973 March 10th Flowering at bottom end of 2 areas at corner of Chessum Road & Lime Pit Rd at Rosedale South. (Down near the creek)

Rather prostrate shrub. with stellate hairs - so long they can be seen with naked eye. leaves on our specimen about 1" long dark green, some stellate hairs, crinkled on top, toothed with rounded lobes & tending to be three lobed though not very pronounced. leaves with stems half as long as leaf. Back lighter green & hairs quite visible (stellate) on veins & some on leaf. leaves alternate but in clusters or groups.

On fresh growth there are two pointed bracts at junction of leaf stem & branch. $\frac{1}{4}$" x $\frac{1}{8}$" wide

Flowers appear to come from same junction but on other side of branch to leaf.

Calyx green & white, hairy almost petal-like, 5 in number, petals smaller & shorter than calyx lobes white, just narrow stripes. Centre of flower appears like smaller flower stamens app petals ovary superior with what appears to be 5 tiny petals but are staminoides



Very hairy bracts around flowers stems bases.

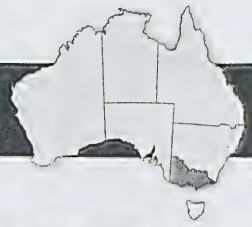
Several flowers branching off ~~common~~ stem. Branches & all stems very hairy with stellate hairs.

1991 Nov 7th Flowering around & in disturbed areas of Ben Winch Swamp at Eastern end of Holey Plains S.P. Area to be fenced to protect plant by DCE.

1991 Nov 26 Flowering on bulldozer track through reedy swamp at end of Clements Rd in APM block Stradbroke Sth Cupp Hway.

Cheers Bon
Bob

Victoria



PROTECTING THE DWARF KERRAWANG

By Natalie Holland, TSN Coordinator

The story of a small, threatened wetland plant that vaguely resembles a strawberry plant highlights the critical role that private protected areas can play in the conservation of threatened species.

Dwarf Kerrawang seed capsules. © Emma Roe

The dwarf kerrawang, *Rulingia prostrata*, is a threatened species which is listed as endangered under the *Environment Protection and Biodiversity Conservation Act 1999*. In Victoria, this species is restricted to a small geographic area in Gippsland. The number of recorded locations in Victoria has declined by a third over recent decades. It is now only known in just nineteen locations. This includes a number of locations on private land, where some populations of the dwarf kerrawang continue to be threatened by incompatible land management including clearing, grazing and alterations to drainage patterns.

Since 1999, Trust for Nature has acquired three properties, which contain six of the dwarf kerrawang populations on private land, making Trust for Nature one of the major landholders responsible for the survival of this species. The purchases through the National Reserve System program of the Australian Government, along with covenants on other private land, will help to protect this species, as well as the threatened Gippsland Plains grassy woodland, sedge wetland and damp sands herb-rich woodland communities.

Since the property acquisitions, Trust for Nature and TSN have worked as partners to ensure the survival of the dwarf kerrawang through a TSN Community Grant. In 2004, Trust for Nature received a grant to undertake restoration works over 20 hectares of previously degraded habitat on the Bush Family Reserve.

With the assistance of the grant and volunteers from a number of community groups, a range of on-ground works were undertaken including fencing to exclude stock, burgan control works, the construction of grazing exclusion plots, seed collection, propagation and planting of tube stock, direct seeding, natural regeneration and monitoring. These works have contributed to an eight fold increase in the dwarf kerrawang population, as well as a return of the sedges and rushes across the wetlands.

The protection and management of these sites will provide some security in the conservation of this threatened species.

For further information contact the Threatened Species Network Coordinator in Victoria or Trust for Nature, 03 9670 9933.

Winter 2007

Cheers Bob — I know its the wrong species. Bob

Rulingia procumbens Survey in Central-West New South Wales—Preliminary Results

Darren Shelly[1] and Steve Lewer[2]
[1]Regional Ecologist Central-West, Dept. Land and Water Conservation, PO Box 717, Dubbo, NSW 2830
Ph: (02) 68417435 dshelly@dlwc.nsw.gov.au
[2]Botanist, Centre for Natural Resources, Dept. Land and Water Conservation, Dubbo, NSW 2830
Ph: (02) 68417464 slewer@dlwc.nsw.gov.au

Rulingia procumbens – Creeping Kerrawang [Family Sterculiaceae] is described by Harden (2000) as a 'prostrate shrub with slender trailing stems to 30 cm long arising from woody stolons; with alternate, ovate to lanceolate leaves (2–5 cm) which have deeply crenate margins; and with small white flowers arranged in cymes.' The species grows in sandy sites, typically in dry sclerophyll open forest or woodland with a heath / myrtaceous understorey. It appears to be a fire ephemeral, often colonising areas following wildfires and other disturbances, but disappearing once other competitive vegetation has established. The species is rare in and endemic to New South Wales, being mainly confined to the Dubbo-Mendooran-Gilgandra region, but it has also been recorded in Pilliga, Narromine and Nymagee areas, Mount Kaputar National Park and more recently in the Sandy Hollow / Goulburn River district (Upper Hunter Valley) (Bell, 2001; Harden, 2000). There is a possibility (currently being investigated) that the plants found in the Sandy Hollow area represent a new taxon, as flower colour and habit are slightly different.

© Darren Shelly & Steve Lewer

Flowers of Rulingia procumbens *(Creeping Kerrawang) – Goonoo State Forest*

Within New South Wales, *Rulingia procumbens* is listed as a Schedule 2 Vulnerable species under the *Threatened Species Conservation Act 1995*. Nationally, the species is listed as Vulnerable in the *Environment Protection and Biodiversity Act 1999*. It is also listed as a ROTAP (3V).

At the commencement of this survey, three distinct populations of *R. procumbens* were located in dry sclerophyll forest in a compartment of Goonoo State Forest (about 50 km north-east of Dubbo). This site had been subject to wildfire in late 1997. By February 1998, none of the subject plants were present at this site, though some plants were located at other sites in unburned areas where they had been found previously. By April 1998, hundreds of seedlings were recorded in the burnt areas but none remained at the unburnt sites.

Numbered stakes were used to identify 127 seedlings. Measurements were taken at three-monthly intervals from May 1998 to January 2000, and then at six-monthly intervals until January 2002 when most plants were seen to have died. Data measured for each plant included:

- Dimensions of the largest leaf
- Length of each trailing stem
- Reproductive status (flowering, budding or seeding)
- Distance to nearest plant and its height at the four cardinal points
- Per cent leaf litter, vegetative matter, bare ground, ash, or rock within a 0.5 m^2 quadrat.

Other data obtained included climate (monthly maximum and minimum temperatures, and monthly rainfall) from the Bureau of Meteorology; soil samples from each survey site and other sites with known populations; and surveys in sites adjacent to the unburned vegetation to establish whether Creeping Kurrawang was present and measure its relative abundance compared to that in the burned sites.

The three aims of the survey were:

1. To follow a number of plants through their life cycle to obtain data on seeding frequency, longevity, etc.
2. To see if the main influence on plant growth is disturbance (e.g. fire or physical ground disturbance) or climate
3. To see if soil characteristics are related to plant presence.

While the data are yet to be analysed, some preliminary conclusions can be made with regard to apparent trends:

- Plant growth fluctuated over time with stems often dying back to the central stolon in dry times, and then regrowing after rain.
- Individual stems grew to lengths of 106 cm, which

is three times that noted in Harden (2000).

- Plants (particularly leaves) could be damaged by frosts, but this was not enough to kill the plant.
- Grazing seemed to have little direct impact on the plants but some damage was caused by emus and macropods walking on them during grazing.

This study showed that longevity of *Rulingia procumbens* is approximately 3.5 years in Goonoo State Forest, during which time plants flower and set seed an average of four times within the months of October to February. It is yet to be determined if the short life span is an artefact of climate, such as the onset of drought conditions, or a response to competition from other regenerating vegetation following a fire event. If the latter is true, this raises the question of whether *R. procumbens* is a fire ephemeral, a characteristic of some other threatened flora such as *Monotaxis macrophylla*.

All populations known occurred on sandy soil substrates, typically of silty sand topsoils grading to clayey sands at depth, with low pH (4.5–5.0), moderate to high levels of organic carbon (expected after fires), very low electrical conductivity and high to very high aluminium toxicity levels. The highest abundance of plants in the Dubbo district was in areas associated with open ground (e.g. disturbance after fire, no groundcover, graded roadsides and open road batters). Extensive searches revealed no evidence of plants growing in undisturbed and intact forest adjacent to existing populations. The correlation between plant presence and disturbance (particularly fire) was also found by surveys conducted by the National

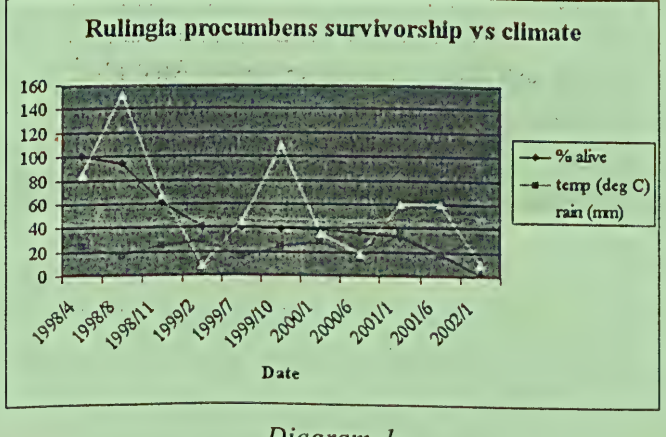


Diagram 1

Parks and Wildlife Service in the Pilliga district after wildfires in 1998 where *Rulingia procumbens* was noted in abundance on burned areas with no groundcover (D. Beckers pers. comm. 1999).

While there has been no definitive examination of the main influences on plant growth to date, preliminary indications are that rainfall has more influence than temperature. Diagram 1 shows a more significant correlation between plant survivorship and mean monthly

Typical burnt habitat of Rulingia procumbens *(Creeping Kerrawang) in Goonoo State Forest*

rainfall [r = 0.67, df = 9, p = 0.05] than mean monthly maximum temperature [r = -0.28, df = 9].

It will be interesting to identify whether climate (rainfall, temperature) or surrounding vegetative growth (shade, competition for soil nutrients) have the greatest effect on plant longevity. For instance, if *Rulingia procumbens* is found to rely more on disturbance factors for its survival, then there are significant implications for interventionist management of vegetation at an appropriate interval in order to promote the growth and reproduction of the species.

Additional research needs to be conducted on the viability and longevity of *Rulingia* seed in the soil and responses of other organisms in the ecosystem to determine the optimum, maximum and minimum frequency of disturbance events. The lifespan of plants in this survey suggests that a frequency of greater than 4 years is required.

References

Bell, SAJ 2001, 'Notes on the distribution and conservation status of some restricted plant species from sandstone environments of the upper Hunter Valley, New South Wales', *Cunninghamia*, vol. 7, no. 1, 77–88.

Harden, GJ (ed.) 2000, *Flora of New South Wales,* vol. 1, rev. edn, New South Wales University Press, Kensington.

Measuring Rulingia procumbens*—Goonoo State Forest*

Rumex bolens Mud Dock

1999 Oct 16th Growing in Bonlac Wetlands, Darnum.

Rumex brownii Slender Dock

1994 Nov/L Growing in Casuarina Reserve Fulham.
Oct/30 " " Dawson Water Reserve.
" " " " R'way "
2000 April " " " Heyfield Wetland

Rumex conglomeratus Clustered Dock

1992 Dec 14th Plants growing along our lane. Need to collect fruiting body to be sure of identification. Inflorescence open with distant whorls of only a few flowers and a leaf at each whorl until almost the very top. Flowers white leaves smaller than R. crispus, 4" x 1/4" but margins smaller wavy (perhaps that's what they mean by crisp). Veins of leaves:— main vein very conspicuous & raised side veins straight for at least half distance to margins before becoming reticulate.

2000 Apr 11th Circuring in Heyfield Wetland.

*

RUMEX crispus Curled Dock.

1992 Dec 15th Plants in bud with just a few flowers open. Need fruit to really key it out but illustration in Plants of Western N.S.W. confirms identification. Growing on lane but common around area. Flowers of inflorescence dense with crowded whorls touching leaves dark green on long stalks. My specimen is an upper leaf + it is 6" long + stalk 1¾" long. leaves oblong lanceolate 3" at widest part, margins wavy. Apart from main veins, side veins + in between reticulate. Base of leaf not even one side slightly lower than the other. Leaves amongst flowers same shape, etc but just smaller. Need to collect fruit as it is a distinguishing feature. Whorl of many flowers at each leaf base, flowers on long stems. Flowers yellow.

1996 Dec Growing in Railway Reservoir Conservation Reserve, Traralgon

Rumex dumosus Wiry Dock

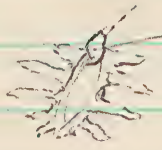
1993 Mch 11. Today Hoey reports one plant found on West Sale aerodrome at Fulham. Not recorded for T.

Rumex pulcher Fiddle Dock

1992 Dec 19th Plant flowering in lane near pine tree gate on our property.

lower leaves oblong + fiddle-shaped in that there is a constriction towards the base of the leaf.

Valves of fruiting perianth toothed with straight teeth - about 5 narrow long teeth.



Branches of inflorescence spreading at wide angle with flowers in clusters, widely interrupted with small leaf at each cluster. Clusters consist of ± 7 flowers around branch with flowers on stalks and drooping in fruit; think they would be the same in flower.

Branches very ~~ridged~~ ridged + also rigid.

1996 Dec Growing in Railway Reservoir Conservation Reserve, Traralgon.

Rumex obtusifolius Broad-leaf Dock

2002 NOV 14 Growing in Railway Reservoir Reserve, Tigon.

Rumohra adiantiformis Shield Hares-Foot Fern

1968 Feb 4th Yerang Park.
1969 Feb 9th Cook's Reserve.
1969 Sept 10th. Morwell Nat. Park
1970 Apr. 18th Glen Nayook. I think this is the fern referred to as Leathery Shield Fern. We brought back a pinnule of this fern which had not shed its sori. The sori were quite black on the paper in the book.

Sambucus Caudi.chaudi.an(a)um (Austral Elderberry)

1967 April 29th Translucent lemon-colored berries at South Cascade
White flowers at Stony Creek earlier in year.
Dec 23rd Flowers + seeds Morwell National Park
1970 Nov 23 Flowering at Lilly-Pilly Gully.
1993 Jan 31 Plant growing in Errinundra N.P.

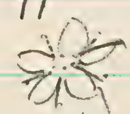
Samolus Repens. (Brookweed)

1967 April 1st. Flowering in salt marsh at Loch Sport.
Small plant with white to pinkish flowers on slender stems. Narrow ovate leaves.

1970 Mch 8th Flowering in marshy area behind dunes at Sandy Point near Walkerville. Flowers plentiful & delicate but stems of plant rather long 1ft but lying on ground.

1971 Aug 22nd Flowering in salt marsh at Loch Sport.

1980 Mch. 29th " " " " " P. Smythe reserve.
Some plants with long slender creeping stems with leaves mostly on one side & others more erect to 9" and branched. Leaves in the latter all around the stems.

1980 June 15th. Flowering along salt marshes along Seaspray-Golden Beach Rd. Stamens opposite 5 petals and therefore conspicuous.  Gives flower a dainty look. Mostly flowers were only on one side of stalk but only few flowers - 3 the most.

1993 Feb 23rd. Flowering in salt marsh at Red Bluff beach near Wilson's Prom.
Ellen describes them as those jelly little whitey/pink flowers in marsh at Inverloch.

Santalum acuminatum — Sweet Quandong

1972 Aug 28th Plant growing on road to Little Desert. leaves very yellow-green, sickle shaped. Small tree about 8 ft high. leaves about ¼" to ¾" wide ending in tiny point. leaves opposite

Santalum ~~acum~~ murrayanum Bitter Quandong

1972 Aug 28th Tree about 8 to 10 ft. leaves about 1½" long. Tree growing on road towards main road from little Desert. leaves bent towards end, some sickle shaped leaves opposite & at right angles. Flower stalks much branched at end of branches but also axillary flowers. Fruit solid, firm but soft skin easily punctured, dark reddish brown in color, ball-shaped.

Sarcochilus Australis. (Tree orchid)

1966 Dec 18th 1966. Flowering in Foster's Gully.
Last year between Xmas & New Year the flowers had finished but there were seed pods app 6" long. This year the seed pods had formed while the plant was still flowering. In 1964 there were only flowers about 16th Dec.

Scape: Variable. These are epiphytic. Many flowers to one plant. 1965 - 45 flowers on one plant.

Leaves :- 2 - 4 ins long ½ inch across.

Dorsal Sepal :- 3 cm long 1 cm wide green forming a hood.

Lateral Petals :- 2 cm long 5 mm wide, away from the dorsal sepal. Green

" Sepals :- 3 cm long 5 mm wide sickle shaped green.

Labellum :- 3 cm long shaped like V flexible with mauve veins inside wings and a mauve spot outside, flattening out towards the lip, white.

Column :- 1 cm yellow with red veins downwards.

Bract :- none.

Flowers hang down from group of leaves which make a protecting cover. Thin white roots climb around limbs of the tree. This one on coprosma. Plants are not parasitic as they collect their food from the air. This gully is deep shady and protected from prevailing winds, thus causing it to be humid. Great spot for mosquitos.
Flowers hang more than one on the scape.

1967 Apr 30th. A couple of seed pods still on big plant but only about 3" long.

Dec 23rd Flowering Morwell National Park. Lots of little plants, just 2 leaves. Found on Pittosporum undulatum, Hazel pomaderris, Turnipwood, prickly coprosma & Silver Daisy Bush.

1968 Dec 8 Flowering at Morwell Nat. Park
Dec 22nd Still " " " "

1969 Dec ? Traralgon F.N.C. report many plants flowering in Morwell Nat. Park.

Plants growing in Lot 77 Callignee,

2004 Dec 4th Flowering in Morwell N.P.

Sarcocornia blackiana Saltweed Glasswort

Ellen describes it as shrubby. Very thick jointed ends; one ~~end~~ segment cupped in one below.

Sarcocornia quinqueflora.

Salicornia (australis) Beaded glasswort.

1968 May 12th Flowering at Ciellingdale Run. Smooth jointed fleshy stems like string of beads. Flowers very minute.

1969 Sept 27th Flowering at Ciellondale only greenish yellow flowers.

1970 Mch 8th Flowering at Waratah Bay.

1993 Feb 26th Plants growing v with a few flowers in salt marsh on Red Bluff beach near Wilson's Prom.

1996 Oct 12th Plants growing at Paradise Beach near 2nd pipeline in NP. Ellen states this plant is inclined to branch + is found in wettest areas. Green or reddish.

Scaevola aemula. Fairy Fan-flower

1981. Nov 27th. Flowering in Haberlouche Forest near lunch spot at cleared bend in road. Also along roadside. Yellow centre distinctive.

1985 Oct 3rd Flowering on Cienca Peak Road. Bush about 18" high. Flowers like a Coopernookia flower. Identification by Helen Ashton, Herbarium.

Scaevola Hookeri ~~Erectus~~ (Alpine Fan Flower

1967 Feb 5th Flowering at Erica ✓ (leaves like Helichrysum Hookeri cypress, pressed into white stems ✓ Flowers small and yellow with curled back centres.)

Dec 29th Flowering on side of road to Erica car park. Flowers from white to Blue. Macleays swallowtail butterfly was very interested in flowers. (Lovely green a black swallowtail)

1968 Jan 18th. Flowering at Baw Baw. Flowers definetly fan shaped with 5 to 8 petals mostly 5, arranged on one side. leaves fleshy broad & hairy. about ½" long. Flowers pale blue + white. Quite a few patches.

1971 Jan 17th Flowering profusely with the pratia, making a beautiful sight. These flowers were pale blue but very thick. On flat just before final rise to Mt Useful.

1972 Jan 30th Flowering in Mt Howitt area.

Feb " at Mt St. Gwinear.

1993 Feb 26th " " Shallow Inlet marshy area.

1994 Jan 16th " " Mt St. Gwinear & Mt. Erica.

1994 Nov 26th " " APM block Stradbroke Sth. Gipp. Hway.

Scaevola (Aemula) Ramomissima Hairy fan flower.

1966 Nov 13th Flowering at Cormandale.
1967 Jan 4th Flowering in profusion at Cormandale.
Mch 4th Still flowering but not very many flowers.
Oct 10th - Nov 17th Flowering in Cormandale Reserve
1968 Jan 14th " " garden.
Mch 30th Still flowering profusely in garden.
1969 Feb 16th Flowering in Cormandale Reserve.
Oct 18th " Rosedale.
1970 Jan 24th " on Bruthern Road.
Mch 21st " in Cormandale Reserve - Willung South.
May 25th Flowering in Cormandale Reserve but only few flowers.
Oct 17th Flowering at Briagalong
1973 May 13th " Rosedale

Schoenus apogon — Common Bog-rush

1994 Nov 26th In seed in APM block Stradbroke Sth. Gipp. Hway.
Dec 28th " " " T'gon Sth Reserve.

Dijida

Schizaea (asperula) - Rough Comb Fern.

1969 May 10th Rosedale - Female fronds in sori.

May 18th Willung South - " " " "

2003 June Name change in 7th ed. of Census

Schizaea bifida Payz. Forked Comb Fern

1969	Jan. 14th	Anderson's Track.
1969	Jan 15	"
1970	Ja 18th	"
1968	Dec 27th	Seminis Track

Schizaea fistulosa Narrow Comb-fern

2002 Nov 24 Plant growing in Horley Plains State Park at corner of Chessum Rd & Seldom Seen Rd on SW corner. Stem app. 9" high. Sent specimen to Ian Clark 29.11.02 Ian confirmed identification

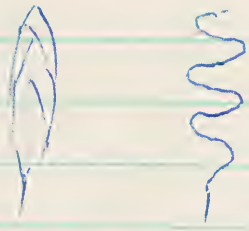
Schoenus apogon Common Bog-rush

2002 Oct 5th Growing in Grinigan Road Reserve.

Schoenus brevifolius Zig-Zag Bog-rush

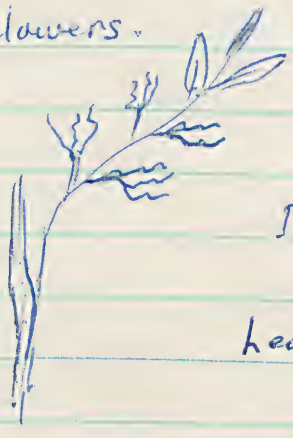
1987 April 22nd Flowering in area around dam at Lilliard amongst pine area.

Zig-zag applies to rhachillas (stem within flower bracts.



There is a little bud or flower at each bend.

Head with many flowers or spikelets each on long thin stalk. Stem clasping bract at each group of flowers.



Culm terete. 2ft high.
Leaves ? not collected.
Identified by Ellen.

Leaves obsolete in Willis, p. 240.

1995 Dec 12 Growing in AIPM block at Stradbroke

lepidosperma
Schoenus (tenuissimus) Slender Bog-rush

1995 Dec 12 Recorded for Railway Reserve near Traralgon

2003 June Name change in 7th ed. of Census

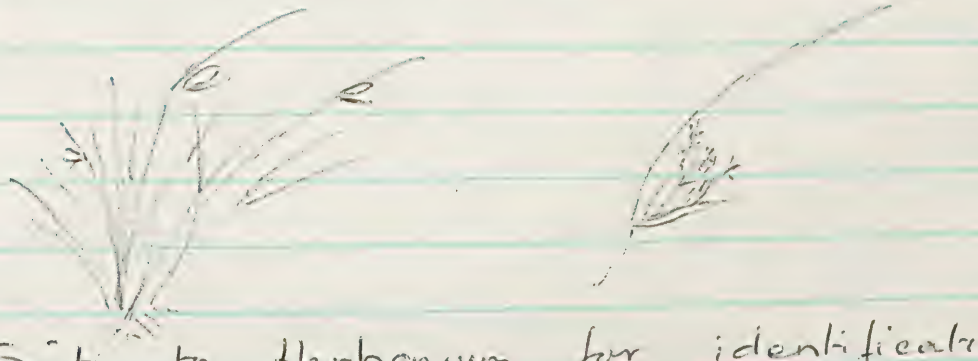
Schoenus maschalinus Leafy Bog-rush

2001 Aug 11 Flowering in Traralgon Railway Reservoir Reserve
2002 Oct 13 " " Crinigan Road "
2005 Nov 13 " in pot in garden. Came from Morwell Golf course per John Topp. Identified by David Cameron.

TLR/118/6mm.

Scirpus

1971 Aug 8th Flowering on Whitlaws Track.
Tufted plant with grasslike roots.
leaves green & brownish, curved app 3.5 cm long & grooved, with almost transparent bracts at base about 7 mm long.
Flower stem app 4 cm long but some smaller than leaves — 2 bracts below flower - lowest one 1 cm long second one longer or as long as flower.
Flower with 3 flowers with stamens three branched.



Sent to Herbarium for identification
Not mature enough to identify species.

Scleranthus biflorus Twin flowered Knawel

1970 Jan 24-25 Flowering everywhere at Wulgulmerang.
1971 Jan 17th " " Mt Useful.
Jan 30th " " Howitt Springs and on Mt Howitt Hike.
1994 Jan 16th Flowering at Mt. St. Gwinear.
1995 Jan 15th " " Dargo weekend.
1996 " 20th " " Hotham " on snow plains.
1999 " 23rd " " Gelantipy weekend. Identified from specimen brought back.

Scleranthus diander — Tufted Knawell.

1972 Jan 30 flowering at Mt Hewett.
1974 Dec 7th " " Tamboritha - Bennison Plains.
1974 Jan 29th " " Buckety Plains.

Scleranthus singuliflorus Knawel.

1974 Jan 29th Flowering on Bogong High Plains.

1999 Jan 23rd " " Cleland tipsy weekend. Identified from specimen brought back

Sclerostegia arbuscula.

Arthrocnemum arbusculum Jointed Glasswort.

1968 May 12th Flowering at Ceiling dale Run. Succulent, jointed branches, flowers between joints, Some joints swell + become red suggest these have seeds in centre but green ones above them.

1972 Aug 28th Plants growing + flowering (I think) in the area around Salt lake near Walimuk, Flowers yellowish. Shrubby plant.
Ellen says flowers in Jo. Seems to bear berries.

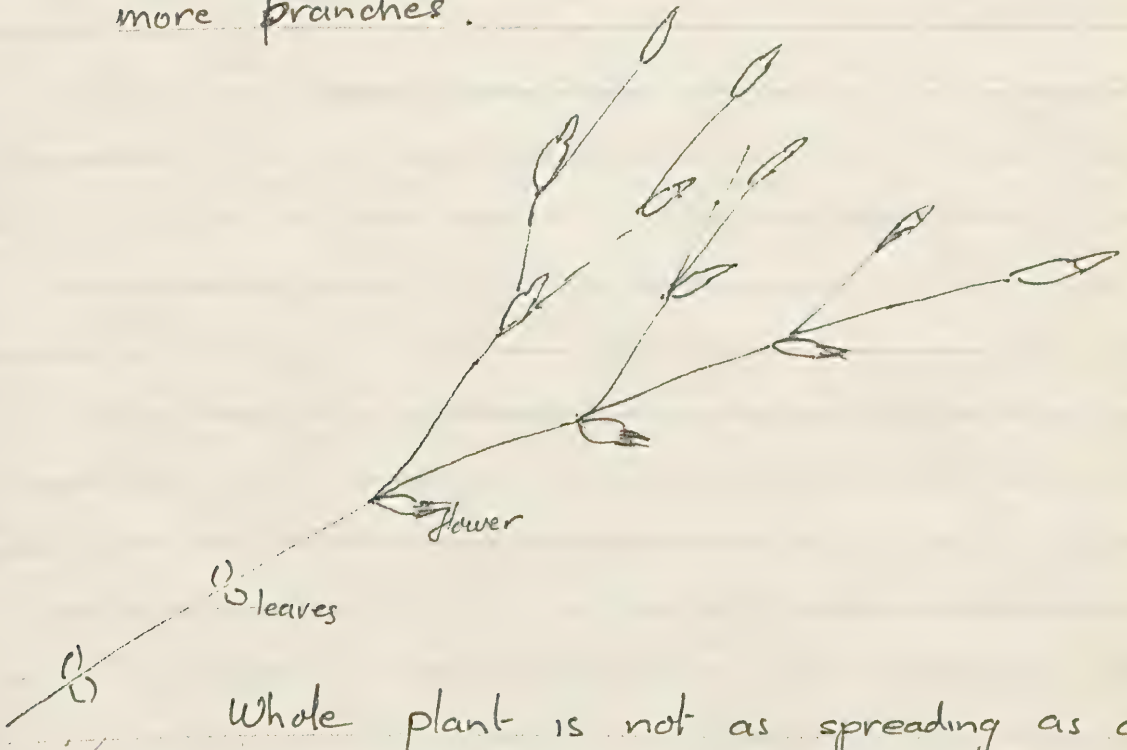
Sebaea albidiflora

1978 Oct 28th little 4 petalled flower, leaves opposite flowers terminal leaves blue green blunt, somewhite fleshy. Flowers white. Flowering in salt marsh near causeway at hoehs Sportn. A little like Selleria radicans at first look.

1996 Oct 12th Flowering at Paradise Beach near 2nd pipeline in N.P.

Sebaea ovalis — Yellow Sebaea

1989 Nov 27th Flowering on Massey's Road in Mullungdung Forest. Like a yellow centaury and belongs to same family. Plant about 9" high. Leaves sessile, opposite + small. Sepals free to base and acute, five in number. Flowers with 5 petals exceeding the calyx. Arrangement of flowers is one flower + then stalk branches into two and about 1½" along another flower + two more branches.



Whole plant is not as spreading as drawn to illustrate branching.

1994 Nov 1. Flowering in Casuarina Reserve Tulham

1994 Oct 12" " - Paradise Beach near 2nd pipeline in N.P.

Selaginella gracillima. Tiny Selaginella.

1996 Oct 12 Growing at Paradise Beach near 2nd pipeline in N. P.

Selaginella uliginosa Swamp. Club-moss

1994 Nov 26th Plant in APM block Stradbroke Sth. Cipp. Hway.

Selliera Radicans (Swampweed)

1967 April 1st. Flowering in salt marsh at Loch Sport. Fleshy creeping plant, leaves spoon shaped, small light colored fan flowers very close to ground.

1969 Feb 16th Flowering swamp at Rosedale

1971 Aug 22nd Plant growing in salt marsh at Lakes National Park near Loch Sport.

1973 July 14th Plant growing in Toongabbie North

1978 Oct 28th Flowering in saltmarsh near causeway at Lochs Sport.

1993 Feb 26th Flowering in salt marsh at Red Bluff beach near Wilson's Prom.

Selliera Radicans (Swampweed)

1967 April 1st. Flowering in salt marsh at Loch Sport. Fleshy creeping plant, leaves spoon shaped, small light colored fan flowers very close to ground.

1969 Feb 16th Flowering swamp at Rosedale

1971 Aug 22nd Plant growing in salt marsh at Lakes National Park near Loch Sport.

1973 July 14th Plant growing in Toongabbie North

1978 Oct 28th Flowering in saltmarsh near causeway at Lochs Sport.

1993 Feb 26th Flowering in salt marsh at Red Bluff beach near Wilson's Prom.

Notes from latest Ane 21, 21,

Notes from latest Muelleria Volume 21, 2005.

This volume contained two articles on Seneco species..
1 The Study pf the *Senecio glossanthus* and recognition of allied species with long ligules.
2 The Study of Australian Senecio - The *Senecio pinnatifolius / S. lautus* complex.

A key is given to discriminate the Glossanthus group from *S. condylus* and the *S. lautus / S.pinnatifolius* complex.

1. Calycular bracteoles 2 - 6, involucre with length : diam. ratio 1.5 - 4; ligule less then 2.5mm long
Glossanthus group

1. Calycular bracteoles 5 - 16; involucre with length : diam. ratio 0.8 - 1.5; ligule greater then 4mm long. 2.

2. Achenes dimorphic (2 kinds), with achenes of female florets c. 1mm longer than those of bisexual florets, bracteoles & phyllaries strongly pigmented in distal 1 - 1.5 mm. *S. condylus*

2 Achenes homomorphic or mildly dimorphic with achenes of female florets hardly longer than those of bisexual florets or if clearly longer then bracteoles & phyllaries with pigmented zone less then 0.5 mm long and often rather faint. *S. lautus / S. pinnatifolius complex*

STUDY OF AUSTRALIAN SENECIO - THE *S. PINNATIFOLIUS / S. LAUTUS COMPLEX*

S. lautus is treated as only growing in New Zealand.

In the complex 7 new species are described predominantly from arid or semi-arid regions. Of these 7 only one is recorded for Victoria and that is from South Aust. to Bendigo.

The Tasmanian species *S. spathulatus* is recognised as a species and two new varieties are described. One of which is recorded for Wilsons Prom. and the coastline of East Gippsland from approx. Lakes Entrance eastwards.

S. pinnatifolius is applied to a complex of forms in Australia. Eleven species are discussed with *S. spathulatus* with 3 varieties and *S. pinnatifolius* with 8 varieties. Of all these only 5 species or varieties are recorded in Victoria with one in Mornington Peninsula and another in Bendigo.

S. pinnatifolius var pinnatifolius and *S. spathulatus var latifructus* are recorded for Wilsons Prom. *S. pinnatifolius var lanceolatus* is probably the species in our area but we will have to check with the key when flowering.

STUDY OF *SENECIO GLOSSANTHUS* AND RECOGNITION OF ALLIED SPECIES WITH LONG LIGULES.

S. Glossanthus has the ligules much reduced ,or also can apparently appear non-radiate, and is mostly recorded in north-western Victoria and occasionally in the Whipstick and box-ironbark forests of the central area of Victoria.

S. halophilus is one of 3 new species in this group which occurs in S.A. and western and south-central Victoria; but it is thought it may be more widespread than so far recorded. Other new species of this group do not occur near our area. The difference between *S. halophilus* and *S. glossanthus* is that *S. halophilus* has involucre 5 - 7mm long as opposed to 3.5 -6mm in the latter; calycular bracteoles 0.5 - 1mm instead of 0.2 - 0.5mm and ligules not exceeding the involucre as opposed to generally exceeding the involucre. So perhaps if we have a plant that keys out similar to *S. glossanthus* in Willis then it may be worth checking with *S. halophilus.*

Senecio biserratus. Jagged Fireweed.

1994	Oct 28	Plants in	T'gon Sth Reserve.	
	Nov 1	" "	Casuarina "	Fulham
	Oct 30	" "	Dawson R'way Reserve.	
1995	Apr 12th	" "	Drouin Water "	
	Jun 15th	" "	Dargo weekend	
1994	Nov 9th	var. dissectus	on Licola "	
1996	Jan 20th	Plants on	Hotham "	
1995	Dec 12	" "	Railway Reserve near Traralgon	
1997	Apr 1st	" "	APM Reserve - Grand Ridge Rd.	
1999	Oct 16th	" "	Bonbac Wetland, Darnum.	
2004	Nov 13	" "	Newborough bush.	
	Dec	" "	" "	Sandy Ck.
2002	Nov 30th	" "	Toongabbie Wetlands	
2004	Apr 3	" "	Cerley's Rd. Block.	

SENECIO

Muelleria has produced a long article of 114 pages on the disciform species of Australian Senecio (disciform species are those with no ray florets and therefore only disc florets). The key covers 40 species on 7 pages and is followed by descriptions of each species. Of these species 30 are recorded for parts of Victoria while 10 are recorded in areas in Latrobe Valley. There are 11 new species, 1 new subspecies and 3 new Victorian records.

Muelleria Vol 10 2004

This species described on Page 123. In key separated from new species (S. dislabilobatus) which grows above 500m from G'land to Mt Howitt in Eastern Australia.

Senecio glomeratus

Erechthites Arguta (Rough Fireweed)

1967 Jan 1st Flowering along Clark's Rd. Leaves broad lanceolate, coarsely toothed. Headlets very small in dense clustered.

1994 Nov 1. Flowering in Casuarina Reserve Fulham

1996 Sept 5th Growing on Tramway Rd. near Churchill in Significant Roadside Area. (Ken Harris)

1996 Nov 23rd Growing on Old Ford Trail in Keramunga Coastal Reserve.

Dec " " Old Melb Rd near Latrobe Rd. Morwell.

1997 Nov 26 Flowering along Downies Lane near the drain at the corner with Tyson Ck. Road.

Leaves very deeply lobed & lobes also lobed. Leaves covered with cobwebby hairs or indumentum; upper surface sparse & lower surface heavily covered. The lower the leaves down the stem the sparser the 'cobwebs'. Leaves with big toothed auriclar lobes where attached to stem. Involucre bracts & base of involucre woolly with 'cobwebs'.

2004 Nov 3 Growing in Newborough bush.

2004 This species is separated into 2 subsp in Muelleria Vol 19 2004. p. 145.

Subspecies glomeratus has achenes < 1/3 of phyllary length (involucral bract) 4.0-6.0mm long, achenes 1.0-1.7mm long & commonly all medium dark red-brown; pappus 7.5mm long.

Subspecies longifructus has achenes > 1/3 phyllary length, phyllary 3.0-5.0mm long, achenes 1.3-2.2mm long; marginal achenes greenish or olive, others medium brown, pappus usually < 6mm. long.

2004 Nov 28 Flowering at Ollerton Avenue Bushland, Moe: probably subsp. glomeratus because of red-brown achenes.

Senecio gunnii

1972 Jan 30 Flowering at Mt Hewitt

2004 In key in Muelleria Vol 19, 2004 p. 117 S. gunnii is separated from a new species S. extensus.

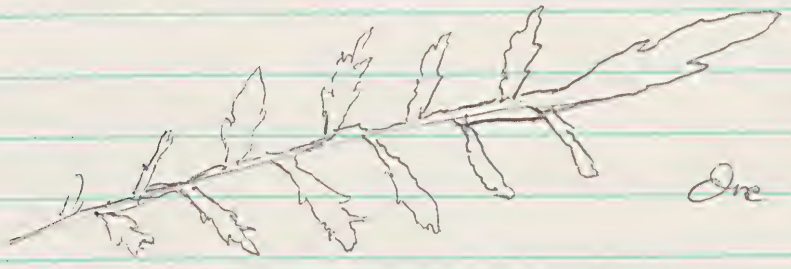
S gunnii has calycular bracteoles (bracteoles at base of involucre or calycular ~~at base~~) 2–3.5 mm long, not extending to midpoint of involucre; achenes > 2.5 mm long, olive green-brown, usually with a few papillose hairs.

S. extensus calycular bracteoles 3–5 mm long, typically extending beyond the midpoint of involucre; achenes < 2.5 mm long, red-brown, glabrous.

Senecio hispidulus

1973 Mch 11. Plant growing in Willung Sth. Back of leaves purple.

1993 Jan 31st Flowering during Combienbar weekend. Dried specimen we brought home has very divided leaves which turned dark burgandy.



One leaf.

Achenes brown, pappus with large number of bristles.

1994 Nov 26th Flowering in APM block Stradbroke Sth. Gipp. Hway.
Oct 28th " " T'gon Sth Reserve
Nov 1 " " Casuarina " Fulham
Nov 7 " on Nicola Weekend. Specimen very like illustration of S. hispidulus var dissectus in Flora of N.S.W.

1994 Apr 12th Growing in Drouin Water Reserve.
1995 Nov 9th Flowering along Clarkes Road.
Oct 28th " " Wonthaggi Heathlands
1991 Oct 12th " " Mt Heddrick.
1997 Apr 5th Growing in APM Reserve — Grand Ridge Rd.
2000 Dec 3rd Flowering in Sweetwater Ck. Reserve.
2001 Nov " " Newborough bush.
2004 Apr 3 Growing in Colley's Rd. Block

2004 S. hispidulus is divided in the key in Muelleria Vol 19 2004 p. 114 from new species S. hispidissimus: In Victoria S hispidulus is widespread while S. hispidissimus only grow in far south-western Victoria.

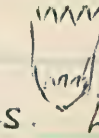
S. hispidulus has sparse to moderate coarse hairs above mid-stem. apex of phyllaries with small black spot; achenes red-brown.

S. hispidulissima is densely coarse-haired in upper region & on inflorescence apex of phyllaries with purple zone; achenes tan or chocolate brown.

2006 Sept 30 Crowning at Seneris Track

(2 pages)

Senecio linearifolius — Small Fireweed Groundsel.

1967 Feb 5th. Flowering at car park at Erica. Small flowers
Nov 5th - at Stoney Creek. Long leaves, many small leaves at base of big leaf, light green beneath, many many flowers in terminal corymbs with small petals. Looks bit like Erechthites when in bud.
1968 Jan 18th Flowering at Baw Baw but before we reached the top.
Feb 4th Flowering on way to Yerang Park in Park.
1969 Feb 9th Flowering in gullies up Tigon Ck. Rd.
1970 Jan 25th - at Wild Dog Creek, Wulgulmerang. App 14 ray florets, very toothed blunt leaves, much branched florescence.
1972 Jan 30th Flowering in Mt Howitt area.
"1961 Jan 4th " " Callignee Hills
1959 Nov 18th " " flora reserve near bike track. Ligules short, leaves toothed regularly with big + then small tooth on side of big teeth, involucre bracts black tipped, two row of bracts.  . Main stem purplish, round, glabrous. Leaves stem clasping without a stem themselves.
1991 Jan 27th Flowering on Tullock And Road near Gelantipy
1993 Jan 31 Flowering in profusion in Errinundra N.P.

1995	Jan 15th	Recorded flowering profusely on Dargo weekend.
1996	" 20th	Ditto at Hotham weekend.
	Nov 23rd	" on Old Pott Trail in Nooramunga Coastal Reserve.
1997	Jan 18th	Flowering on Mt. Baldhead
1999	" 23rd	" " Gelantipy weekend.

Notes from latest Muelleria Volume 21, 2005.

This volume contained two articles on Seneco species..
1 The Study pf the *Senecio glossanthus* and recognition of allied species with long ligules.
2 The Study of Australian Senecio - The *Senecio pinnatifolius / S. lautus* complex.

A key is given to discriminate the Glossanthus group from *S. condylus* and the *S. lautus / S.pinnatifolius* complex.

1. Calycular bracteoles 2 - 6, involucre with length : diam. ratio 1.5 - 4; ligule less then 2.5mm long Glossanthus group
1. Calycular bracteoles 5 - 16; involucre with length : diam. ratio 0.8 - 1.5; ligule greater then 4mm long. 2.
2. Achenes dimorphic (2 kinds), with achenes of female florets c. 1mm longer than those of bisexual florets, bracteoles & phyllaries strongly pigmented in distal 1 - 1.5 mm. *S. condylus*
2 Achenes homomorphic or mildly dimorphic with achenes of female florets hardly longer than those of bisexual florets or if clearly longer then bracteoles & phyllaries with pigmented zone less then 0.5 mm long and often rather faint. *S. lautus / S. pinnatifolius complex*

STUDY OF AUSTRALIAN SENECIO - THE *S. PINNATIFOLIUS / S. LAUTUS COMPLEX*

S. lautus is treated as only growing in New Zealand.

In the complex 7 new species are described predominantly from arid or semi-arid regions. Of these 7 only one is recorded for Victoria and that is from South Aust. to Bendigo.

The Tasmanian species *S. spathulatus* is recognised as a species and two new varieties are described. One of which is recorded for Wilsons Prom. and the coastline of East Gippsland from approx. Lakes Entrance eastwards.

S. pinnatifolius is applied to a complex of forms in Australia. Eleven species are discussed with *S. spathulatus* with 3 varieties and *S. pinnatifolius* with 8 varieties. Of all these only 5 species or varieties are recorded in Victoria with one in Mornington Peninsula and another in Bendigo.

S. pinnatifolius var pinnatifolius and *S. spathulatus var latifructus* are recorded for Wilsons Prom. *S. pinnatifolius var lanceolatus* is probably the species in our area but we will have to check with the key when flowering.

STUDY OF *SENECIO GLOSSANTHUS* AND RECOGNITION OF ALLIED SPECIES WITH LONG LIGULES.

S. Glossanthus has the ligules much reduced ,or also can apparently appear non-radiate, and is mostly recorded in north-western Victoria and occasionally in the Whipstick and box-ironbark forests of the central area of Victoria.

S. halophilus is one of 3 new species in this group which occurs in S.A. and western and south-central Victoria; but it is thought it may be more widespread than so far recorded. Other new species of this group do not occur near our area. The difference between *S. halophilus* and *S. glossanthus* is that *S. halophilus* has involucre 5 - 7mm long as opposed to 3.5 -6mm in the latter; calycular bracteoles 0.5 - 1mm instead of 0.2 - 0.5mm and ligules not exceeding the involucre as opposed to generally exceeding the involucre. So perhaps if we have a plant that keys out similar to *S. glossanthus* in Willis then it may be worth checking with *S. halophilus.*

SENECIO

This article covers shrubby discoid species and other allied radiate species of *Senecio linearifolius.*

Muelleria Vol 20 2004

The result is recognition of one new species *S. euclaensis* in S.A. & W.A; one new subsp. *S. anethifolius* subsp *brevibracteolatus* in S.A. and a new variety *S. cunninghamii* var. *flindersensis* again in S.A. (74 pages)

Key to discoid & allied radiate species covers 16 species of which 8 are described, only 3 of the 8 are recorded in Victoria. Key to *Senecio linearifolius* with 9 varieties shows only 3 do not occur in Victoria. The study of radiate arid species allied to *S. magnificus* and 2 varieties of *S. pectinatus* including var. *major* in Victoria and the new name for *S. glandulosus* are shown. Apparently *S. glandulus* was originally *Erechtites glandulosa* (1838) then the name *Senecio glandulosus* (1845) was declared illegitimate as name was already in use; but in 1930 it became *Erechtites quadridentata* var *glandulosa.* But as this name is not included in the Census of Victoria it must then not have been recorded for Victoria. Now it is known as *Senecio campylocarpus.* The article does not say if it is recorded for Victoria now.

Lastly the article includes a key to radiate & quasiradiate (quasi = resembling) Senecio and Arrhenechthites in Australia which includes 34 species and a complex.

Correction: In my last notes from Muelleria the volume number was mistyped to Vol.10 when it should have been Vol 19.

A concise taxonomic treatment of the tribe Senecioneae (Asteraceae) in Australia with descriptions of 39 species from 13 of the 14 genera in the tribe in Australia. (*Bedfordia* is excluded) There is a key to the 14 genera and a key and descriptions to each of the species in each genus.

Muellerici Vol 24 2006

There is also a complete key to groups, species and infraspecific taxa in Senecio following the descriptions of the groups. The majority of species have been described in previous Muelleria 2004a, 2004b, 2005a and 2005b. There are also a ket and descriptions of nine introduced species that were not described in the previous articles.

Senecio (Australis) linearifolius

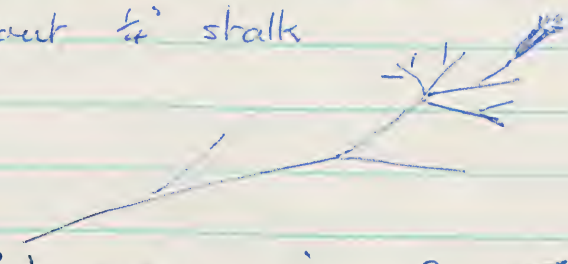
1967 Jan 14th. Flowering in Callignee Hills.
1990 Nov 20th " " Cowwarr Bushland.
1991 Jan 24th " along Tuloch Ard Rd near Cielantipy.
1994 Apr 12th Growing in Erwin Water Reserve.
2004 Muelleria Vol. 20 2004 P. 59 has a revision of Senecio linearifolius with 3 varieties. S. linearifolius variety linearifolius is recorded near Moe. Var. denticulatus could be in our area. Var latifolius is from Powelltown E into N.S.W. while several others are recorded for Victoria but not near our area.

Senecio Mimimus

1967 Septr 10th Flowering at Morwell National Park. leaves very dark + large - flowers no ray florets. Tall about 4 ft.

1968 Febr 4th Flowering in Yerang Park.

1970 March 8th " in bush at Warakah Bay. leaves small ½" long, dark green with very prominent veining; lighter underneath with veins sticking up, edges of leaves denticulate + curved under. Flowers with no ray florets but quite conspicuous stigma's protruding above stamens giving feathery appearance. Inflorescence branched with approx 12 flowers on each branch. Inflorescence stalk quite long 2" to first branch + then 2" to next branch. Each flower on about ¼" stalk



1973 Sept 3rd Plant growing in One Tree Hill - Bendigo

1994 Oct 30 " " - Dawson R'way Reserve.

1999 Oct 16th " " " Benlac Wetland, Darnum.

2004 Key in Muelleria Vol 19 2004 P 113. Key of all discoid discoform Senecios.

Senecio odoratus — Scented Groundsel.

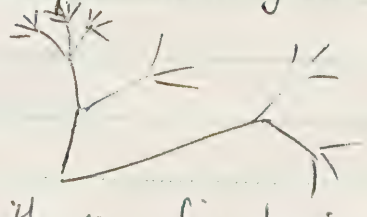
1972 Jan 30th ~~Flowering~~ Plant growing in Mt Howitt area.

1973 June 23rd Plant growing at Darlamurla.

1990 July 29th Flowering in lot 213a Parish of Rosedale. Leaves stem clasping with auriculate at base. (Willis says leaves usually glabrous but these had fine hairs on both sides. Everything else agrees with Willis's key.

1995 Nov 9th Flowering along track in N.P. at Paradise Beach. Tall shrub to 5ft. Flowers in large heads with tubular florets with the tips of florets curled back to give head a lacy appearance. Bracts at base of involucre & about ½ down petiole. Flowers in groups of 4-5 on a common stem & 3-4 groups on second stem & then these larger groups still joining into a third common stem

Involucre bracts ± 10 with black tips (hairy)



with very ~~sharp~~ short barbs.

Achenes cylindrical with very fine hairs,

Leaves thick almost glaucous, lighter on undersurface, glabrous, denticulate on margins but not regular. Margins also slightly undulate. Leaves stem clasping with auricles on either side of stem, ± cm near flowers, don't know how big near base. Flowers have perfume but not really pleasant.

1996 Oct 12th Growing at Paradise Beach near 2nd pipeline in N.P.

Nov 23rd " - Old Port Road in Nooramunga Coastal Reserve.

Dec " Traralgon Sth. Road.

Dec " Early Road, Moe.

1997 Sept 6 " on Moe Rail Trail.

2005 Nov 5 " " Tom Simpson's Bush Block, Trafalgar Mth.

Senecio Pectinatus (Alpine Groundsel)

1967 Feb 6th Flowering at Erica. Single flower on stalk with basal toothed fleshy leaves. Flower yellow. Rare.

1968 Jan 18th Flowering at Baw Baw but not as prolific as at Erica. Perhaps too early. The yellow is a most beautiful color almost golden orange.

1973 Jan 26th Flowering at Mt Baw Baw

1974 Dec 7th " - Tamboritha - Bennison Plains.

1996 ~~Dec~~ Jan 20th " - Mt Loch track - Notham weekend.

1998 Muelleria 9 1996. The only variety of S. pectinatus in Victoria is S. pectinatus var. major. There are 2 other varieties but they are both Tasmanian.

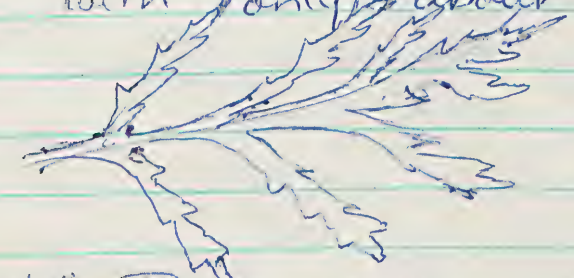
2004 Muelleria 20 2004 There are now 2 varieties of S. pectinatus though 2nd variety not recorded for Victoria.

pinnatifolius

Senecio (hautus) (Common Fireweed)

1967 1st Jan Flowering along Clark's Road.
1967 Aug 27th Variety with very much dissected leaves and flowers only about ½" across We think it could be variety of above leaves similar to carrot leaves.
Sept 23rd Flowering along Blackwarry Scenic Road.
Oct 22nd " at A.P.M. Bush.
1968 Jan 12th Still " " " "
June 22nd Flowering " " "
Aug 24th Flowering along Cormandale ~~road~~ road.
1968 Sept 3rd Dissected leaf variety flowering at Glengarry North & at Cowwarr.
Nov 10th Flowering Clarke's Rd
1969 May 2nd Still flowering at South Caseade.
May 24th Variety of this plant growing about 1 foot high at Cape Paterson, had more the appearance of a succulent.
July 20th Fine leaf variety flowering at Glengarry North.
Aug 16th Flowering at Wilson's Prom. The leaves of this variety were much more succulent than the forest variety.
Oct 4th Dissected leaf variety flowering at Cowwarr,
Nov 2nd " " " " "
1970 Mch 8th Small shrub in bush at Waratah Bay. Flowers small, leaves sharply toothed & regular, teeth small. Involacre bracts fringed with brown.
Oct 11th Flowering at Heyfield, variety with very dissected leaves.
Nov 25th Flowering at Briagalong.
1971 Jan 17th " " Seaton. variety with dissected leaves.
Jan 30th Flowering at Howitt Springs and on

the Mt Howitt Hike. These plants were similar in flower to usual type but the leaves were very different. They were dissected right to midrib but with only about 5–6 lobes.



Bracts behind flower very pointed & well spread.

1971 Sept 3rd Plants growing throughout the Grampians but not as prevalent as in the forest around home.

Nov 13th Dissected leaf variety flowering at Cowwarr.

1972 Feb Flowering at Mt St. Gwinear

1989 May 11 " at Boodyarn.

1992 Jan 26th " on Bogong High Plains. Specimens like those in 1971 on Howitt Hike as described above.

1993 Jan 31 Flowering in Errinundra N.P.

1994 Sept 9th S. lautus is now considered NZ endemic and so we have a new name for our species

Nov 9th S. pinnatifolius var dissectifolius growing on Licola Weekend.

Oct 30 Recorded at Dawson River Reserve.

1995 Apr 1 Flowering in Drouin Water Reserve

1996 Jan 20th " on Hotham weekend.

1997 " 18th " " Mt. Baldhead.

Apr 14th " in APM Reserve – Grand Ridge Rd.

1998 Mallerna 9 1996. Discussion on single stalked Senecio species. S. pinnatifolius var dissectifolius no longer in Census for Victoria. However the alpine & sub alpine form of S. pinnatifolius are now named S. pinnatifolius var. pleiocephalus with inflorescence of several to numerous branches ending in 3-5 heads. Involucral bracts still

Notes from latest Muelleria Volume 21, 2005.

This volume contained two articles on Seneco species..
1 The Study pf the *Senecio glossanthus* and recognition of allied species with long ligules.
2 The Study of Australian Senecio - The *Senecio pinnatifolius / S. lautus* complex.

A key is given to discriminate the Glossanthus group from *S. condylus* and the *S. lautus / S.pinnatifolius* complex.

1. Calycular bracteoles 2 - 6, involucre with length : diam. ratio 1.5 - 4; ligule less then 2.5mm long Glossanthus group
1. Calycular bracteoles 5 - 16; involucre with length : diam. ratio 0.8 - 1.5; ligule greater then 4mm long. 2.
2. Achenes dimorphic (2 kinds), with achenes of female florets c. 1mm longer than those of bisexual florets, bracteoles & phyllaries strongly pigmented in distal 1 - 1.5 mm. *S. condylus*
2 Achenes homomorphic or mildly dimorphic with achenes of female florets hardly longer than those of bisexual florets or if clearly longer then bracteoles & phyllaries with pigmented zone less then 0.5 mm long and often rather faint. *S. lautus / S. pinnatifolius complex*

STUDY OF AUSTRALIAN SENECIO - THE *S. PINNATIFOLIUS / S. LAUTUS COMPLEX*

S. lautus is treated as only growing in New Zealand.

In the complex 7 new species are described predominantly from arid or semi-arid regions. Of these 7 only one is recorded for Victoria and that is from South Aust. to Bendigo.

The Tasmanian species *S. spathulatus* is recognised as a species and two new varieties are described. One of which is recorded for Wilsons Prom. and the coastline of East Gippsland from approx. Lakes Entrance eastwards.

S. pinnatifolius is applied to a complex of forms in Australia. Eleven species are discussed with *S. spathulatus* with 3 varieties and *S. pinnatifolius* with 8 varieties. Of all these only 5 species or varieties are recorded in Victoria with one in Mornington Peninsula and another in Bendigo.

S. pinnatifolius var pinnatifolius and *S. spathulatus var latifructus* are recorded for Wilsons Prom. *S. pinnatifolius var lanceolatus* is probably the species in our area but we will have to check with the key when flowering.

STUDY OF *SENECIO GLOSSANTHUS* AND RECOGNITION OF ALLIED SPECIES WITH LONG LIGULES.

S. Glossanthus has the ligules much reduced ,or also can apparently appear non-radiate, and is mostly recorded in north-western Victoria and occasionally in the Whipstick and box-ironbark forests of the central area of Victoria.

S. halophilus is one of 3 new species in this group which occurs in S.A. and western and south-central Victoria; but it is thought it may be more widespread than so far recorded. Other new species of this group do not occur near our area. The difference between *S. halophilus* and *S. glossanthus* is that *S. halophilus* has involucre 5 - 7mm long as opposed to 3.5 -6mm in the latter; calycular bracteoles 0.5 - 1mm instead of 0.2 - 0.5mm and ligules not exceeding the involucre as opposed to generally exceeding the involucre. So perhaps if we have a plant that keys out similar to *S. glossanthus* in Willis then it may be worth checking with *S. halophilus*.

Senecio pinnatifolius P.2.

dark tipped. leaves pinnatifid to pinnatisect sometimes reduced to idulate bracts.

2004 Nov 23rd Flowering in Holey Plains State Park.
2004 Apr 3 " " Colley's Rd. Block.
1994 Apr 1. Growing & flowering in Dromin Water Reserve.
Nov 9th Flowering along Clark's Road.
2003 June In Census 9th edition there are 5 varieties of this species.
2005 Muelleria Vol. 21. Article on S. pinnatifolius complex. There are 8 varieties of S. pinnatifolius besides 11 species with S. spathulatus with 3 varieties. Of the 11 species it are recorded in Victoria & 2 varieties of S. pinnatifolius. Of these it appears var. latifructus occurs at Wilsons Prom & East Gippsland; var pinnatifolius is recorded for Wilson Prom in Vic & var. lanceolatus could easily be in our area as it occurs in southern Victoria. The other two species that occur in Victoria are recorded for Mornington Peninsula & the other for Bendigo;

S. lautus var dissectifolius became S. pinnatifolius var pinnatifolius

2005 Nov. 15th Flowering at Traralgon Sth Roadside Reserve (opp. lakes) S. pinnatifolius var lanceolatus because it has 3 rows of bracts & phyllaries on involucre & all are dark tipped. leaves have many marginal teeth (8-40) ours had 13 teeth & 4 long lobes first, middle of leaf 1cm w/o teeth & 8cm long at least; broadening at base & sessile. Ray florets 15. See diagrams in Muellera Vol. 21 p. 30 & ps. 26 & 27.

Senecio

(Erechtbites) Quadridentatus (a). Cotton Fireweed

1967 Jan 1st Flowering along Clark's Rd. No ray florets, headlets less numerous but larger and leaves narrower ~~toothed~~ lower ones stalked.

1994 Oct 28th Flowering in T'gon Sth Reserve.

Nov 1. " " Casuarina " Fulham

1994 Nov 7 " at Nicola Weekend.

Oct 30 " " Dawson R'way Reserve.

1995 Nov 9th " along Clarkes Road.

1997 Apr 5th Growing in APM Reserve - Grand Ridge Rd.

2004 Key to discaform Senecios in Muelleria Vol 19 2004 P. 117 & P. 112. in 2 places in key.

2005 Jan 24 Members brought back specimen from the Errinundra weekend. Didn't use key in Muelleria as it was a very dry seeded specimen.

Senecio Vagus — Fire-weed

1966 25 Sept Flowering at Cowwar
1967 16th April. Flowering along Clark's Rd.

Senico Velleioides

1967 Feb 5th Flowering at car park at Erica. leaves in pairs - stem clasping.

April 29th Flowering at South Cascade.

1969 May 2nd - - - -

1972 Jan 30th Plant growing at headwaters of McAlister River.

Feb - - Mt St Gwinear

*Senecio vulgaris Common Groundsel.

1995 Nov 9th Flowering in N.P near Paradise Beach at 2nd pipeline.

Very good illustration in our British Wildflower book.

Plant with pinnatifid leaves with widely separated toothed lobes. All florets tubular with involucre bracts in several lengths - ± 11 in longest but more than 16 altogether and with black tips. Upper leaves ± stem clasping and auriculate. Main stem purplish. Florets above involucre bracts at maturity. Inflorescence well branched. Achenes reddish brown, pappus fine and spreading

Involucre widening at base

2004 This species is not in the key to discciform Senecios in Muelleria Vol. 19 2004. I can only assume that as the papers heading includes 'Australian Senecio' this one is not included as it is an introduced species.

Senna aciphylla.

(Cassia) (australis) aciphylla.

1970 Oct 19th low bush with pinnate leaves, pinnae opp. with ~~one singly~~ two at end. leaflets dark green above, paler green below with midrib prominent and margins of leaves recurved under. leaves alternate.
Flowers yellow large circular petals - 5", on long stalks from leaf bases, Stalks branching after opp. 3 cm into opp 4 and continuing another 1.5 cm before the calyx. Sepals separate except at base & opp. 7mm long x 4mm wide. Flowers inclined to close into loose ball. Petals falling leaving calyx & pod. Very pretty plant. Identified by Miss Galbraith. Briagalong

(Cassia nemophila) Senna artemisioides

1973 Sept 11th Flowering in Whipstick. Tree about 12' high with a mass of yellow buds Some of the flowers open. Flowers orange yellow, stamens dark brown. Pods long - about 2' - flat as yet about 1 cm wide leaves made up of pairs of pinnules all in pairs, no single one at end - 2 or 3 pairs usually leaves yellow green. ~~yellow~~ golden flowers give tree a golden look.

2003 June In Census - 7th ed. there are 5 subsp. of this species

*

Setaria pumila (was S. glauca) Pale Pigeon-grass

1994 Feb 28" Specimen with inflorescence from Delray Beach in area being rehabilitated. Description in Grass folder.

Identification verified by Dr. Parsons received 7/4/94 New record for X.

*

Sherardia arvensis. Field Madder

1990 Nov. 14th Flowering on Andrea Lindsay's block in blackberry project quadrant. Plant like purple asperula with tiny tube flowers + rings of 4-6 leaves in a whorl.

Sigesbeckia orientalis Indian Weed.

1973 Oct 28th Plant growing in Avon Country.

1994 Oct 30th " " " Dawson R'way Reserve.

1996 Mch 8th Flowering near bridge on Downies lane after flood.

1999 July 12 Flowering down at the creek on our property. Be aware there is now a second species ~~here~~. S. orientalis has floral bracts far exceeding the flower head and a lot of glandular hairs on the bracts & the flower head. Although the book says the plant has glandular hairs too I can only see the glands on the back of the leaf on the midvein. Of course there may be more but perhaps you need the microscope to see them.

*

Silene gallica French Catchfly.

1994 Nov 1. Flowering in Casuarina Reserve Fulham
Oct 30 " " Dawson Water Reserve.
1994 Oct 2 " " a soak area in APM where pines had been.
These were very tall plants - about 44 cms. + clump ± 1ft across.
Calyx hairy and cylindrical. Leaves spathulate.
Hairs on stems + calyx long villous. Petals pink with reddish purplish blotch that almost covers the lamina.
Therefore these plants are S. gallica var. quinquevulnera.
1995 Dec 12 Flowering on Railway Reserve near Traralgon

Siloxerus multiflorus

(Rutidosis multiflora). Small Wrinklewort.

1970 Oct 25th. Flowering at Cowcow near Thelymitra irregularis. Tiny plant about 1" high with a combination of flowers included in a papery "cup". Photographed. Leaves linear about as long as flower high and surrounding flower.

1979 Oct. Flowering at Ciffard.

1987 Oct 31st " " Dawson. Railway Reserve.

1994 Oct 30 " " " "

1996 Oct 7th " " Ciffard Rifle Range.

2003 June Name change in 7th ed. of Census

*

Silybum marianum Variegated Thistle

1995 Apr 12" Growing in Darwin Water Reserve

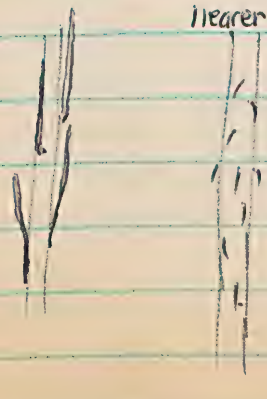
Sisymbrium officinale Hedge Mustard.

1997 Nov 12th Flowering along Downies lane.

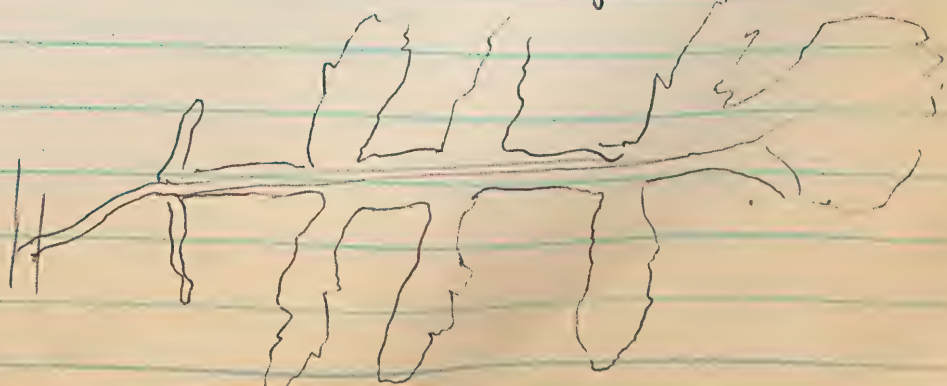
Key to Brassicaceae Flora of Victoria Volume 3. P. 399.

1. Inflorescence arising from leaf-axil 3.
3. Fruit with 1-2 fertile seeds. 12
12. Fruit at maturity with valves separating from the middle well to ~~produce~~ release seed. 14
14. Fruit more than 3 times as long as broad. 15
15 Fruits ripening in air or erect or spreading stalks. 16
16. Fruit with a single terminal beak. 17
17. At least lower leaves lobed, divided or with toothed or scalloped margins 20
20 Herb glaberous or hairy; leaves various 21.
21 Petals yellow 29
29. Fruit with persistent style or w/o a terminal extension 34
34. Plants with only simple hairs or glabrous. 36
36. Leaves or leaf-lobes not linear; inflorescence elongated. 37
37. Fruit valves with conspicuous midvein reaching to apex; fruit narrow lanceolate to linear 38
38. Fruit valves with 2 weaker ~~reticulate~~ lateral veins; plants usually hairy. Sisymbrium

Fruits erect (pedicles closely appressed to flowering stem) and conicle Flowers small. S. officinale.



leaves rather glabrous with coarse hairs on midrib on lower surface



2002 Nov 14th Crossing in Railway Reservoir Reserve, Tigon

#1

Sisymbrium orientalis — Indian Hedge-mustard.

1997 Nov 9th Flowering in Stratford Knob Reserve.

Key to Sisymbrium on page of S. officinale.

Key to genus.

Fruits - spreading + cylindrical.

Petals 6-10 mm, plant covered with soft reflexed hairs

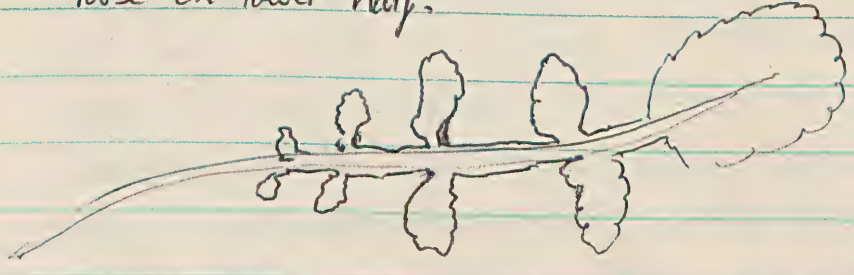
S. orientalis,

Hairs very soft + reflexed but dense.

Flowers small, fruits spreading as they mature with quite a long section at end.

Leaves hairy with ± appressed hairs + many hairs around the margins. Even stalk of leaf hairy.

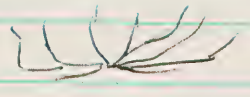
Leaf segments attached on upper half to midrib but loose on lower half.



*

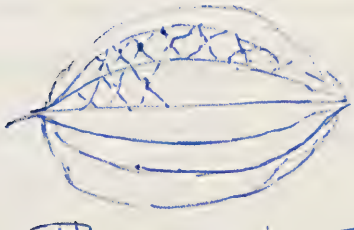
Sisyrinchium Iridifolium — Striped Rush Leaf

1966 Nov 6 — Flowering on Clark's Road — Introduced weed.
1967 Jan 1st — " — profusely along Clark's Rd.
1968 Nov 10th — " — " " "
1971 Nov 11th — " — at Flynn.
1994 Nov 26th — " — APM block Stradbroke Sth Gipp. Hway.
1995 Dec 12 — " — Railway Reserve near Traralgon.
2005 Mch 18 — Wendy brought plant from roadside of friend. It looked different to us as it was really tufted with a great number of branches & leaves spreading out from a central area. The whole plant seemed much stronger & perhaps broader of leaves than the more erect plant we are used to seeing in our area. Tom Simpson says it is the same as the plant he brought us flowers from. Wendy's plant didn't have flowers only capsules (immature). We decided these plants were the perennial form of the plant. In Flora of Australia it states in the key there are both perennial & annual forms of this species. The plants we are used to are just erect plants not spreading & erect.



Smilax australis — Austral Sarsaparilla

1972 July 9. Mt Billy Goat Bend with Bairnsdale Club.
A very tough climber with leathery leaves.
leaves from almost circular to elongated but broad & tapering to round point which curls under & remains very tough - could perhaps catch on clothing.
Also quite large tough prickles on stems.
Veins of leaves having five longitudinal veins all meeting at stem of leaf with netted veins in between the prominent longitudinal ones. Leaves very dark green above & lighter green beneath but both sides shiny. Berries green at this time and about 1 cm across; growing in a cluster from a central point



July 22nd Plants at Fairy Dell.
1991 Jan 26th Plants growing on trees on Bett's Creek Road off Tullock Ard Road near Gelantipy.

SOLANACEAE

This key is part of the key to flowering plants in the Flora of N.S.W.
Leaves foliate & simple.
Flowers usually bisexual
Ovary superior
Ovary & fruit solitary or carpels fused
Fertile stamens to twice as many as sepals
Perianth in two whorls (sepals and corolla)
Flowers fused into a tube, rarely split down one side or at base
Leaves alternate or all basal
Stamens born on petals (epipetalous) GROUP 23

There are some species that are climbers that are in other groups.

GROUP 23 18 families
Flowers bisexual
Milky sap absent
Leaves not longitudinally veined or if veins with more than 1 longitudinal vein then leaves herbaceous as opposed to heaths that are hard and fibrous
Style terminal, tubercular hairs absent and plants not succulent, inflorescence not branched and ending in a flower for each branch.
Stamens 5 or fewer
Ovary with 2 or more loculi
Inflorescence not in compact spikes
Ovary oblique in flower, flowers usually actinamorphic (can be bisected in several planes symmetrically) or usually so SOLANACEAE
All the rest of this group further down the key have zygomorphic flowers (bilaterally symmetric only in one plane). They are Scrophulariaceae, Convolulaceae, Polemoneaceae, Myoporaceae and Boraginaceae.
SOLANACEAE
Fruit a berry
Flowers in definite racemose, cymose, subumbellate or panicle-like inflorescence
Leaves entire or lobed, corolla wite, blue to dark purple, rarely pink, if yellow, orange-yellow or green-yellow then berry white or black.
Corolla lobes rolled or folded
Stamens 5, anthers 2 locular, corolla variously coloured with striations absent SOLANUM
SECTION OF KEY FOR CLIMBERS
Not water plants
Plants either climbing or epiphytic on other plants or more or less on aerial parts of o ther plants
Tendrils absent
Leaves compound with 2 or mor pinnae GROUP 9
(Leaves pinnatifid or pinnate with distinct pinnae on lower rachis and a terminal segment often deeply lobed; petiole smooth Solanaceae
Leaves simple or 1-foliate (sometimes apparently absent)
Leaves alternate GROUP 10
Leaf margins entire, with petioles greater than 10mm long, coastal species, sometimes in or near rainforest. Solanaceae
Leaves deeply lobes, petiolate, flower white to pale blue Solanaceae

* Solanum americanum Glossy Nightshade

(Was. S. nodiflorum in Willis)

1988 Aug. 1st Flowering at Wirilda on ~~walking~~ road track up to top of hill. Plant with small stellate purplish flowers app. 8mm diam. Pedicles all coming from central point. Calyxes ~~and~~ reflexed almost hiding pedicle at that point. Anthers not exceeding style.
Berry glossy purplish black with 91 seeds. which are hardly more than 1cm long.
Upper stems angular with slightly extended ridges or narrowly winged. Leaves shallowly lobes with sparse simple hairs. Did not send specimen to Dr Parson's as recorded in Beauglehole SGA for d - i.e. this area.
Flesh of berry purple + stains paper. Seeds very small, 1mm, and very light in colour very pale cream.
Counted seeds in 3 different berries - 91, 86, 84.
Calyx withered + became smaller as they dried.

1989 Feb 21st Flowering at Shackleton Park near Thorpdale.
Specimen fits above except that fruit are 6 to each group not 4. but Flora of Aust says 4-12 flowered so no problem. Berry shiny even when green + green skin so thin almost transparent.

1990 Feb 4 Plants in fruit on lookout spot at Hernes Oak on Highway.

1995 Apr 12th Growing in Drouin Water Reserve

1997 July 26th Flowering at APM pondage near river.

Sept 6th " on Moe Rail Trail.

Solanum aviculare (Kangaroo Apple)

1970 Mch 8th Plants with berries in full color in bush off beach at Waratah Bay. We were surprised at the number of birds attracted to this plant.
Rufus Fantail – I imagine insects were attracted to very ripe fruit or opened fruit and insect eating birds were then attracted.
Yellow Robin, Brown Thornbill, Silvereye, Scrub Wren, Golden Whistler & small Wattle Bird.
This plant has smooth round stems, and egg-shaped fruit.
The flowers on this plant should have pointed lobes, deeply cut.

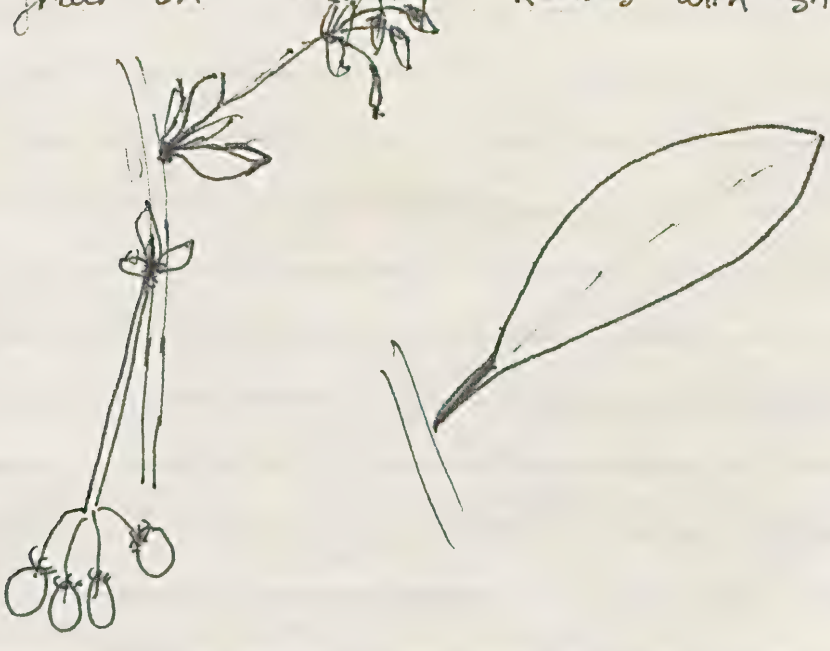
1993 Jan 31 Growing & flowering in Erinundra N.P.

* Solanum chenopodioides

1989 Jan 28th Flowering along roadside near T'gon High School camp past Licola. I cannot key the plant out.

It is a plant about 18" high. Flowers white ± starlike with petals split deeply. Style approx 1-2 mm longer than anthers; just a little above them. Leaves entire ovate with obtuse points; more whitish below than above. Top of leaf not very hairy but lower surface quite pubescent.

Flowers up to 5 together with peduncle pointing upwards from ~~stem~~ branch but pedicles tending to curve downwards, leaves in cluster of variable sizes at base of peduncle & again at base of pedicle. Fruiting peduncle acutely reflexed even when fruit are green & not mature. Fruit globular with short calyx, black (dull) on maturity with (flesh green) approx. 25 straw coloured seeds. Calyx recurved from fruit on maturity. Leaves with short stems.



Posted to Dr. Parsons. 1/2/89. Dr Parsons sent to Adelaide for confirmation as fruiting calyx only ≃ 2 mm (not 3-4 mm) and the flower is much smaller than in the description (N. Scarlet).

1989 Feb 19th Received letter from Dr Parsons with copy of letter from D.E. Symon, Botanic Gardens of Adelaide & State Herbarium. Mr Symon confirms it was S. chenopodioides & will incorporated in Adelaide's collection. Mr Symon says the identification is supported by the indumentum, reflexed peduncles, dull black berries & apparent absence of sclerotic granules.

*Solanum douglasii

1955 June 25th have hardy plant growing amongst blackberries. Think this identification may be correct as similar material from West Tyers has been sent to Adelaide to Mr Symon (David) reviewer of Solanums. Plant growing on Walsh's Block in Morwell N.P. Didn't have any queries with description of S douglasii that I got from La Trobe Uni.

1993 Aug 9th According to Census - 4th ed. S. douglasii in Willis is S. furcatum. Above is not the S. douglasii. Dr Symon's key in front of Vol. 29 of Flora of Australia.

*Solanum furcatum

1988 June 25th Collected specimens on Walsh's Block of Morwell N.P. Although we did not find any berries other than green this day, the specimens Ken Harris took down to LaTrobe Uni had a black berries. Otherwise plant is very like S. opacum except perhaps the leaves are more entire with lobes more towards the tips of the leaves
Tall, soft plant growing near creek. Flowering stem forked before flowers by about ½ or more.
Dr Symon of Adelaide Herbarium has identified this plant as also S. douglasii because the peduncles don't seem to be reflexed and the stone cells are a bit low. Although not in the table the style length of the S. douglasii suite was consistently longer than the anthers. See letter 27th/2/89.

1993 Aug 9th According to Census - 4th ed. - S. douglasii in Willis is now S. furcatum.
Dr Symon's key in front of Vol. 29 of Flora of Australia

Solanum laciniatum (Kangaroo Apple)

1967 Nov 5th In seed at Cowarr Gravel pits. Seed oval and green bigger than ordinary plant. The flowers on this plant should be almost circular with shallow lobes, not pointed.

1971 Aug 22nd Flowering at Loch Sport just through township.

1992 June 21st In fruit on HPM property on Continuation of ~~Bays~~ Oaks-Road from Cormandale rubbish tip area. Fruit orange, stems of plant purplish & ridged. Seeds brown or tan with lots of whitish stone seeds underneath the skin. Found growth of fruit interesting as the calyx completely enclosed fruit to commence with a calyx met at tips. then opened up to expose fruit. Do not think they were buds.

2002 ~~Oct~~ Nov 4 Growing in Crinigan Road Reserve.

* Solanum ~~laxum~~ laxum (jasminoides) Potato Vine.

1988 May 25th. Flowering on private property along the Thomson River. Farm off Heyfield/Fulham Rd. Plant a creeper, flower very like Solanum pseudocapsicum which was growing further in the paddock. Creepers were quite strong and Pad estimated one was 15m up a tree. Farmer said before he did some clearing the creeper was quite plentiful. Dr Parsons says it is the first record of this introduced plant - probably a garden escape - indicating it is becoming naturalized in Victoria. It is recorded as sparingly naturalized around Brisbane & Sydney.

2003 June Name change in 7th ed. of Census

* Solanum nigrum

1988 July 20th Sent specimen to Dr Parsons. I thought it was *S. americanum as I thought the berry was shiny — the stems slightly angular and I could not see any stellate hairs or glandular hairs. Flowers were split almost to base, white with yellow-green centre. However Dr. Parsons says it is S.nigrum as the berries were satin-like but not glossy. (They have Symon's key which must be different from that in Flora of Aust.) Also say calyx lobes are not reflexed (no mention of this in Flora of Aust.) Not S. douglasii as stigma did not exceed anthers by more than 1mm (I agree with this). Our specimen retained calyx on pedicle after fruit dropped. Calyx lobes rounded at points.

Collected some similar plants from down on creek. Counted seeds in berries as we now had plenty of ripe berries. Flesh green, not staining. Seeds pale straw colour approx 1.5-2 mm. Over three berries count was 51, 46 & 44. Calyx did not wither as it dried.

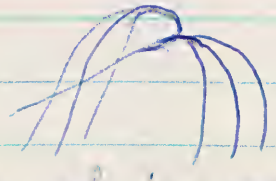
1989 Feb 21. Flowering at Shackleton Reserve near Thorpdale. Calyx lobes this time recurved but not tightly reflexed as in S. americanum & leaving calyx on pedicle when fruit drops. Berries approx 4-8. 6-7 fruits on peduncle. Anthers as long as or slightly longer than style.

1989 March 18th Flowering on track down to Eagles Nest. Plant yellowish green but could be because of growing under other plants & salty situation. Everything agrees with above.

1993.
Apr 2 Flowering in the garden
1994 Oct 30 Growing in Dawson R'way Reserve
1995 Apr 12" " " Drouin Water "
Dec 12" " " Railway Reserve near Traralgon
2006 June 6 Flowering at Railway Reservoir Reserve. This plant under the walkway and was spreading + close to the ground. Keyed out as above.

Solanum opacum.

1955 July 20th Plant flowering in pines behind home. This plant has green berries that do not appear to change colour, except to darken to a deep green, even when fallen off on ground. Specimen to be sent to Adelaide for positive identification.
Flowerstalks only once divided, pedicles reflexed downwards with a wide curve. Pedicle + calyx fall off with the berry so it is difficult to know they have been there.



Lobes of leaves seemed to be lobed down the margins. Berries were not round more oblong

1989 April Could not find above plants this year so far.
1997 July 26th Growing + flowering at Hill pondage near river. Pedicles coming off peduncle some at apex but others further down peduncle. Calyx slightly reflexed. Plant hairy with majority of hairs non-glandular but some longer hairs with minute glands. Stems ridged to almost winged. Hairs on both sides of leaves but longer on veins. Only up to 3 lobes on each margin of leaf. Did not have this specimen identified by Dr. Parsons. Two berries left on three stalks + think they are immature yet but calyx still remains on pedicle. Could berry have been taken by bird or something. Anthers + styles apparently same length.

Solanum prinophyllum

1970 Nov 25 Small blue flowered plant at camping ground at Briagalong. Flowering

1985 Sept 25 Flowering at corner where road turns off to Glenmaggie Weir wall. Plant low to ground. Flowers purple 3 together on separate stalks ψ from leaf base at end of branchlets. Very prickly plants with prickles or spines on stems, upper surfaces of leaves, along veins on under surfaces, on stems of leaves, branches, calyx, all ½ at least long, reddish appearance until you get them in bright light & then they are orange to deep yellow especially towards tips. Smaller spines or stiff hairs on petals. Leaves coarsely & acutely lobed, rather thinish glabrous except for spines, green on both surfaces

1994 Oct 30 Growing in Dawson Water Reserve

Oct 30 " " " Rway "

1995 Oct 25 " " Mt Heddrick

Solanum pungetium Eastern Nightshade

1993 Jan 30 Flowering in bushland between Club Terrace & Combienbar.

Solanum vescum (Gunyang)

1970 Mch 8th Flowering and with berries on sanddunes ~~of~~ or bush near Sandy Point near Walkerville. Stems ridged - leaves sessile and decurrent. Flowers deep purple. Berries almost globular. Flowers in racemes, filaments short, stamens long & hairy. Leaves lanceolate. Berries green although could be immature & turn purple later. Common name is aboriginal word.

1982 Sept 19th Flowering along Seaspray/Golden Beach Road

1983 Mch 25th Collected seeds 1 green berry and 1 withered but others all gone. Probably too late in season. The calyxs had grown very large in fruit. Same plants as those flowering along Seaspray/Golden Beach Road. No leaves left on these plants but this could be because eaten or very dry summer. Suspect eaten as another plant seen further along road in dense shrub was covered with leaves.

1985 Sept 14 Flowering at Traralgon Sth Reserve

1991 Feb 23rd Flowering on Seaspray/Golden Beach Road with green fruit at this stage. Peg collected specimen and said leaf was as per Jean's book with leaf-blade continued down stalk and part of stem as a narrow ridge.

gunnii

Solenogyne (bellioides) (Bottle daisy)

1963 June 1st Found flowering in Lochnone's Lane.
Rosette of toothed light green leaves, broaded at tip, very short stems. Flower about 2" high on very thick stiff stalks. Flower apparently composed of row of green bracts rounded at tip and touching - many - with deep maroon centre composed of tubular flowers without pappus. Looks like flower with petals pulled off.
June 22nd Flowering on Clark's Rd
1969 Jan 1st " Anderson's Track.
1972 Aug 27th " at Mt Arapiles.

7. *Sonchus asper* Prickly Sow Thistle.

1994 Nov 1. Flowering in Casuarina Reserve Fulham

*

Sonchus oleraceus Sow Thistle.

1986 Jan 19 Flowering along Downies lane up in reserve ~~park~~ area. Florets all ligulate, pale yellow. Pappus very fluffy achene brown, Pappus-bristles simple. Achene beakless. leaves & involucre bracts glabrous. leaves stem clasping, dull, lax, big lobes sometimes lobes go right to stem. Auricles of leaves where clasping stems pointed. leaves & stems glabrous.

1994 Oct 30 Growing in Dawson Water Reserve.

*

Sonchus oleraceus P.Z. Milk Thistle

1994 Oct 30 Recorded for Dawson River Reserve.

1995 Dec 12 " " Railway Reserve near Traralgon

Sowerbaea Juncea (Rush Lily)

1966 Sept 17th Very few flowers were fully out but many plants had many buds. Flowering along Racecourse Rd. Rosedale. Plants also in reserve.

1967 Sept 16 In bud along Lime Pit Rd.

1968 Oct 20th Flowering in profusion for 2 miles along Seninis Track.

1969 Jan 1st Still some plants flowering along Seninis Track.

Sept 28th Flowering at Rosedale

1970 Jan 18th Still a very few plants along Seninis Track. Some flowers had dried were still holding their color. When we looked inside they contained black seeds.

May 25th Few flowers on plants on Old Port Rd.

1971 Oct 10th Flowering at Rosedale.

1972 Sept 10th In bud at "

1973 May 13th Flowering at "

Aug 10th In bud in home garden

2006 Sept 30 Flowering at Seninis Track.

* Spergula arvensis Corn Spurrey

1994 Oct 30 Flowering in Dawson R'way Reserve.

Dear Bon, 7/5/98

Neville is very interested in these (new) Spergularias.

He confirms yours as Sperg. sp. 1

He's very interested in rootstock differences, including fleshiness, & asks if you could send more material + rootstocks & roots if possible. — I'll remind him that Pt. Albert is a fair way away from you! (and he's not in any hurry).

Cheers

Bob

Spergularia. Some native some introduced -

General description:-
Leaves opposite, stipules dry & membranous, usually joined around the node. Flowers compound with all branches below the terminal flower in regular opposite pairs or singly branched. Sepals 5, petals entire, stamens usually 1-10 often with staminodes (non-functioning stamens). Capsule splitting deeply into 3 valves.

Key of 4 species that may be in our area.

1. Stamens 6-10, perennial with usually thick wood taproot, sepals usually 4 mm or more long, often stipules often 6-8mm long. 2.

1. Stamens 1-5 (rarely absent) more or less slender taproot and/or sepals usually <4 mm; stipules rarely more than 4 mm long 7

2. Mature seeds yellow-brown to dark brown 3

2. " " black 6

3 Leaves acute, mucronate or shortly awned, stipules 2.5-3.5 mm long, capsules usually 4.5-9 mm long 5

5 Mature seeds usually 0.7-1.1 mm long without papillae, usually rough to touch winged, occasionally a few unwinged 1. *S. media

5 Mature seeds usually 0.6-0.8 mm long with marginal papillae distinctly paler than seed coat, unwinged or winged, often both in same capsule S. marina

6. Leaves sparsely glandular-ciliate, stipules scarcely acuminate, not silvery; petals longer than sepals; seeds 0.7-1.1 mm long, tuberculate or bluntly papillose, most rough to touch winged S. sp. 1.

7. Mature seeds pale grey-brown through orange-brown to dark brown, mostly lacking metallic iridescent lustre, 8

8. Leaf apex obtuse to mucronate, never awned; calyx base with prominent purple-black dots; capsules narrow ovoid, usually 4-6.5 mm long much exceeding the sepals; seeds usually .06-.08 mm long orange brown to deep red-brown with marginal papillae distinctly paler than seed coat, unwinged or winged often in same capsule S marina

8. Leaf apex mucronate; never awned, calyx base with dots obscure or absent, capsules ovoid to sub-globose usually 2-4 mm equalling or slightly exceeding ~~calyx~~ sepals, seeds 0.35-0.55 mm light to dark ~~brown~~ grey-brown with papillae not or hardly paler than seed coat, unwinged 9

9. Leaves strongly bundled, leaf apex long-awned, stipules acuminate, silvery, pedicles distinctly longer than sepals & capsules, glandular hairs of sepals usually 0.1-0.25 mm long, petals usually 2.4-3.8 mm long, uniformly pink, stamens usually 10, capsules usually 4-5 mm long, seeds dark grey-brown S. rubra

* Spergularia media Coast Sand-spurry

1993 Feb 26 Flowering in salt marsh at Shallow Inlet.

*

Spergularia rubra Red Sandspurry

1989 Jan 28th Flowering on cleared land near dam excavation site at airfield in Wonnangatta/Moroka Alpine Park.

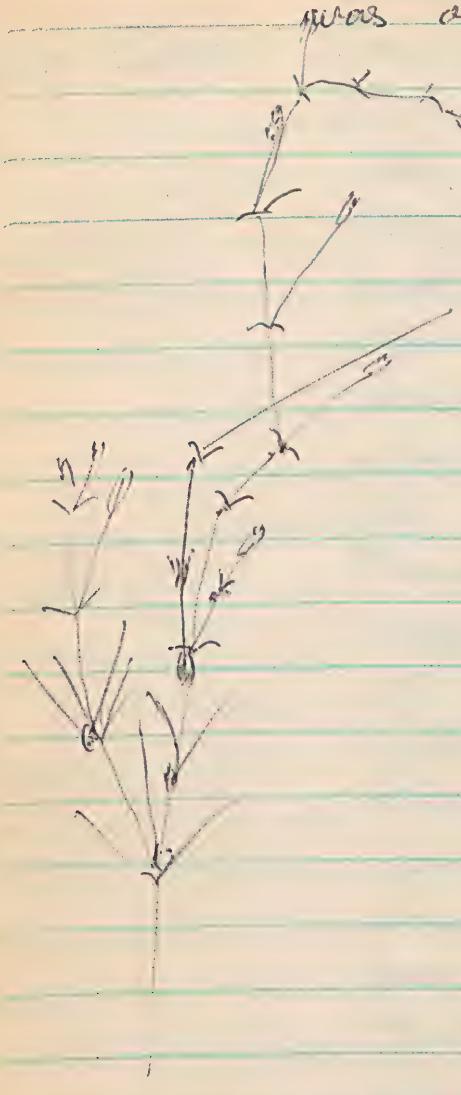
leaves grey-green & much clustered or fascicled. Stipules tissue-like & visible without glass. Leaf-clusters distant from each other giving whorled effect. Leaves linear ending in hair-like point; "branches", leaves & calyx all covered with many glandular hairs. Calyxes densely covered. Flower pink, 5 petals with sepals showing inbetween petals & not quite as long as petals. Specimen took dry to count stamens as I feel some of them had fallen off. Capsule almost as long as sepals. Seeds brown, slightly tuberculate. Short leaves at base of flower pedicels (several leaves).

1994 Oct 30 Recorded for Dawson R'way Reserve

1995 April 9th Flowering in our garden.

Spergularia Sp. 1. Sand Spurrey

1995 March 28th Plants in seed along Old Port Road at Port Albert end near the salt marsh section. The specimen was only part of the whole plant & was 15cm high. Leaves up to 20mm, linear, mucronate, fleshy, hairy, blue-green, several to 2 at each joint in the ~~leafe~~ stems.



Sepals 5 hairy not quite as long as the capsule. Capsule opens with 3 broad papery bracts with very numerous seed inside & what looks like remainder of where seeds grew making a pyramid. Seed. black, tuberculate & winged although wing about ¼ width of seed. Flora of Victoria says petals are shorter than sepals and pink. This species is described in Flora of NSW too & both books suggest it may be native.

Sphaerolobium Viminium Leafless Globe Pea.

1968 Oct 21st Found flowering at Reid's Corner. Just stems about 1½' high, very thin, 1mm wide. Flowers alternate around the stem. Very short peduncles 1+mm long. Flower from back of calyx 6mm long. Calyx olive green apparently free from hairs. Two top lobes united most of the way leaving slight indentation at top. Lower 3 lobes free (W). Flower only 4mm high & not fully opening. Standard I think circular as long as wings; keel boat shaped with deep keel and green (pale). Standard ~~wings~~ red outside & red + yellow inside, wings yellow. Raceme 2.5 cm with 12 flowers, other specimen 3 cm with 20 flowers. There are 2 tiny (2mm long) leaf like bracts at base of ~~Calyx~~ peduncle, these are black. First flowers to open are flowers at top of raceme so that buds are at the bottom. For as much stem as we picked 8 cm past raceme there were tiny (1mm) bracts on the stem. These were alternate around the stem & could be degenerate leaves, they are Δ in shape & brownish green in color. Stem appears to grow straight on after raceme. Sometimes two flowers from same point on stem.

1969 Oct 12th Flowering at Tynong North. Flowers very yellow.
Nov 5th " " Wilson's Prom. Stalk branched.

1970 Jan 15th Flowering along Seninis Track - The red-yellow variety.

1994 Nov 26th Flowering in 17PM block Stradbroke Sth. Gipp. Hway

1995 Nov 4th Flowering in Edward Hunter Reserve
Oct 25th " " Wonthaggi Heathlands.
1996 Nov 7th " " Giffard Rifle Range.

Spiranthes australis (sinensis) Ladies Tresses

1969 Feb 16th Found flowering Rosedale — many flowers spent. Plants fairly short. Previously found at Andersons Track at end of January.

1991 Jan 28th Flowering at picnic area after turn off from Gelantipy Road homeward on Bruthern / Nowa Nowa Road. Ruth Clark says they flower here every year.

1993 Jan 31. Flowering in marsh area in Errinundra N.P.

1997 " 18th " " Livingstone Ck Track near Orbost.

2003 June Name change in 7th ed. of Census

africanus
Sporobolus (indicus var. capensis) Indian Rat. Tail
2001 & 2003 Oct/2. Flowering in Railway Reservoir Reserve, T'gon
2003 June Name change 7th ed 1 Census

Sporobolus virginicus

1971 Aug 22nd Plant growing in salt marsh area in Lakes National Park at Loch Sport.
It is a grass with long (1") fruit and leaves alternate in one plane and about 1½" long.
Ellen describes it as another spiky grass, stem clasping leaves, spikelets dense, leaves in two rows.

Sprengelia Incarnata. (Pink Swamp Heath)

1966 Oct 22 Flowering along Anderson's Track.
1967 Nov 4th Just finished flowering in Wolfe's swamp.
1968 Oct 20th Flowering along Senenis Track.
Nov 3rd In bud along Anderson's Track
1969 Oct 18th Flowering at Rosedale.
1971 Aug 29th Plants growing in the Grampians.
2006 Sept 30th Flowering at Senenis Track.

Spyridium daltonii — Grampians Spyridium

Trymalium daltonii — Narrow-leaf Trymalium

1971 Aug 30th Flowering in the Wonderland area in the Grampians.
Leaf about ½" long dark green above light green underneath with revolute edges.
~~(Flowers in balls singly on a stem)~~.
Leaves heathlike but soft. Flowers terminal racemes, honey coloured, five "petals" with five big sepals or at least this is how I see it. Racemes on long stems and then flower stalks ~~stems~~
Stipules at ~~stem~~ leaf axils rather long and hairy-like.
Branches covered with soft brown hair.

2006 Feb. Name change in Muelleria. Vol 23 2005
Both Trymalium now Spyridium + S. daltonii has to have new common name as Narrow-leaf Spyridium is already allocated.
Key to Spyridium in Victoria also included.

Sp. 1.

Spyridium (coactilifolium? bifidum?)

1972 Aug 28th Plant flowering on road back to main road from little Desert corner. leaves are bifid - very deeply cut- V, edges of leaves recurved. Hairs on back of leaves are not woolly - the hairs are stellate *. Stem reddish and appear ~~woolly~~ glabrous. Leaves are alternate. There appear to be three floral bracts, white bifid and smaller than the leaves. Flowers very hairy, orangy-yellow. Flower-stalk not very long - about ¼". Much more leaves than other Spyridiums in the Little Desert. leaves continue down small branches to first junction. A very delicate plant. If this identication is correct, this could be a first for Victoria as Miss Cialbraith does not know of any other recording. Difference between S. bifidum + this species is the stellate hairs instead of woolly.

1993 Aug 9th This plant not included in Census - 4th ed - so imagine it must be an incorrect identification S. bifidum is included, so imagine it must be that.

2003 June Name change in 5th ed of Census

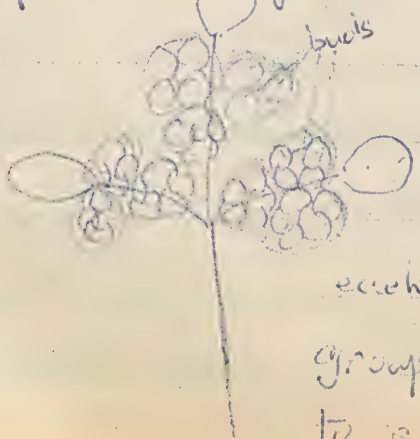
Spyridium parvifolium (Dusty Miller)

1967 June Flowering at Granite Rock
1968 Oct 13th " " Labertouche
1968 ~~July~~ June 30th " " Tyers River Gorge.
Nov 3rd " " Moondarra
1969 Aug 16th " " Wilson's Prom.
29th " in profusion at Granite Rock
Max says whiteness comes from inside of calyx.
Sept 4th Flowering at the Prom but flowers much smaller & not so white as East Gippsland variety
Oct 12th Flowering at Warragul area.
Nov 2nd " " Briagalong.
1970 Oct 17th " " "
Nov 23 " " Lilly-Pilly Gully.
1971 Sept 3rd " " Grampians but flowers did appear smaller.
1972 Aug 28th Flowers spent on plants in the Little Desert. leaves appear glabrous on top but underneath woolly. There are almost always two white floral leaves at each head. Flowers are in a cluster but all flowers appear sessile. Flowers very hairy. leaves oval but ending in recurved point with main vein quite deep. Miss Galbraith identified

this specimen for us. It is a woody plant with few leaves all appearing towards the flowerheads.

Aug 29th In the Grampians at Cotton Gorge.

1975 ~~Aug~~ Sept" Flowering in Mullungdung Forest just up North-South Rd. from Boundary Road. Very prolific. Plants tall, up to 6ft. perhaps more. Leaves oval very rounded at apex with small indentation, main veins & lateral veins very prominent on the undersurface. Upper surface of leaf glaberous but undersurface very woolly from tangled hairs. Branches brown & very hairy. Buds white outside very hairy but calyx brown (brown) inside with petals & hooded over stamens. Bracts behind buds, circular brown (cannot tell for sure if ciliate because of very hairy calyx). Think bract is persistent but not sure. (Fairly sure bract is hairy with long silky hairs.) All leaves near flowers white ~~from~~ woolly covering. Arrangement of flowers :-



floral leaves

Floral leaf at end of each branchlet but several groups of approx 5 flowers attached to each branchlet.

1993 Sept 5th flowering prolifically at Mullungdung.

Spyridium parvifolium P.3.

2006 Aug 15th Flowering at Bunyip.

Spyridium subochreatum

1922 Aug 27th Flowering at Mt Arapiles.
Plant hairy with stellate hairs both on branches & leaves. Stipules at base of leaves quite conspicuous. Leaves with very revolute margins, Bright green above but very hairy below, alternate.
Flower-heads small with floral-leaves same as stem leaves & 3-4 to each flower-head.
Flowers with stellate hairs & conspicuous brown bracts. Identification verified by Miss Galbraith.

Spyridium vexilliferum Winged Spyridium

1972 Aug. 28th Plant flowering in the Little Desert.
This is quite an open plant & quite colourful.
It has 2 to 3 white floral bracts that appear like petals. Flowers in clusters are brown & white. Back of floral bracts ~~be~~ are white with brown mid-rib.
leaves lanceolate with recurved edges -
Top surface dark bright green but underside whitish with brown mid-rib.
Flower heads on long stalks up to ½" long, from leaf bases. All floral bracts are not all the same length. Plant about 4 ft high. Floral bracts as long as leaves up to ½" long.

~~Sparganium~~ Stachys arvensis Stagger Weed

1994 Oct 30 Recorded for Dawson R'way Reserve

Stackhousia Monogyna.

Aug 27th 1966 Flowering in A.P.M. Bush.
Oct 8th Flowers with very numerous stems to the one rootstock. Land had been burnt more than 12 months previously.

1967 Sept 23 ~~Can~~ Flowering along Blackwarry-Gormandale Rd Misshapened and thickened.

Nov 4th Flowering at Cowwarr
1968 Sept 22nd " A.P.M. Reserve.
Oct 20th " " at Chester Park.
Plants flowering in the garden were very bush not single stalks. Could this be because they had been disturbed.
Nov 10th Flowering Clarke's Rd.
1969 Aug 3rd " at Willung South Hays Rd.
31st " Clarke's Rd
Sept 13th " Rosedale Longford.
21st " APM Reserve barky on side of road.
Oct 19th Flowering at Clarke's Road.
Nov 2nd " " Briagalong
1970 Jan 1st " " Licola Rd
25th " at the Cobberas.
Aug 23rd " at Holey Hill Trig P.
Sept 19 " " Chester Park.
Oct 11th " " Heyfield
17th " " Briagalong
1971 Jan 17th " " Mt Useful.
Jan 30th " " Howitt Springs.
Oct 10th " Calligree Sth Rd. - Rosedale.
9th " " Reids Corner.
Nov. 12th " " Flynn + Cowwarr.
1972 Sept 10th " " Rosedale.

1975	Aug 30th	Plants commencing to flower.
1994	Nov 26th	Flowering in APM block Stradbroke Sth. Gipp. Hway.
	Oct 28th	" " Tgon Sth Reserve
	Nov 1	" " Casuarina " Eldbram
	Oct 30	" " Dawson Water Reserve.
	Nov 9th	" " Licola weekend
1995	Jan 15th	" " Dargo "
1991	Oct 12th	" " Mt Heddrick
1995	Oct 28th	" " Wonthaggi Heathlands.
1997	Jan 18th	" " Mt Baldhead & Mt Nugong.
1999	" 23rd	" " Gelantipy weekend.
2002	Nov 23rd	" " Holey Plains State Park
2006	Sept 30th	" " Serenis Track.

Stackhousia pulvinaris Alpine

1971 Jan 30 Flowering but mostly with berries - yellowish green - on plains at Hewitt Springs.

Stackhousia spathulata (Coast)

1969 Nov 8th. Flowering at Darby River, Wilson's Prom.; succulent with daphenoides leaves.

Stackhousia viminea (Slender)

1969 Nov. 8th Flowering in the heathland at Wilson's Prom. Very slender and delicate plant.

1972 Aug 25th Flowering stalk from last season showing in Little Desert. Mr Lindner said plant was leafless Stackhousia. Stalk was 2ft high, dark brown, ~~tr~~ rough with no visible evidence of leaves. Flowers at top of stalk probably last 6 ins but about 1" apart. Cannot tell if flowers solitary or grouped. As stalk tapers to apex flowers were apparently closer together up to app. ¼" apart. In Miss Galbraiths Wildflowers of Victoria, it states this plant can be up to 3ft high & flowering stems often leafless. Makes me wonder if identification of Wilson's Prom. plant was correct.

2000 Dec 3rd Flowering in Sweetwater Ck. Reserve.

Stellaria Flaccida (Forrest)

1967 Jan 4th. Flowering in Callignee Hills.
Nov 5th " at Stoney creek. leaf very soft almost like chickweed. Calyx shorter than petals
1968 Feb 4th Flowering in Yerang Park climbing about 5ft. up trees.
Oct 13th " at Stoney creek in profusion
Dec 22nd " " Morwell National Park
1969 Oct 4th " " Stoney Creek Commun.
Dec 15th " along Jeeralang Rd.
1970 Nov 23rd " at Lily Pily Gully
1971 Oct 23rd " " Morwell Nat. Park.
1972 July 22nd Plant growing in Fairy Dell.
1975 Aug 30th " " Mullundung.
1993 Jan 31 Flowering in Errinundra N.P.
1995 Jan 15 " " Dargo weekend.
1997 Jan 18 " " Mt. Wugong.

*

Stellaria media Chickweed.

1991 March 11th. Growing in garden. Leaves ovate the lower petiolate the upper sessile. Flowers in leafy terminal cymes. Sepals hairy, petals shorter. Plant stems with line of white hairs on one side leading down from junction of leaves + alternating to other side of each node. Recorded by Monash students for Andrea Lindsay's block.

Stellaria Pungens (Prickly Star-wort)

1966 Oct 1st Flowering in rifle range bush.
1967 Aug 20 appox. Flowering in bush behind us.
1968 Nov 17th Flowering Cdl. Road near Dead Horse Gully
1969 Oct 12th " Warragul area.
Nov 2nd " at Briagalong
1970 Jan 2nd " at Burgeins' Gap.
24th " " Wulgulmerang - Wild Dog Creek.
Oct " " new area Rosedale
Nov 28th " " Briagalong.
1971 Jan 17th " " Springs near Mt Useful.
30th " at Howitt Springs and on Mt Howitt Hike.
1994 Oct 30 " in Dawson Water Reserve.
Nov 9th " " Licola weekend
1995 Jan 15th " " Durga "
1996 " 20th " " Hotham "
1997 " 18th " " Livingstone Ck Track near Omeo.
1999 " 23rd " " Gelantipy weekend.
2002 Nov 23rd " " Holey Plains State Park.

Sticherus flabellatus Shiny Fan fern.

1999 Jan 23rd Recorded for Gelantipy weekend

1998 See note under S. lobatus

Sticherus lobatus Scrambling Tan-fern.

1973 Aug 11th Plant growing along W24 in the Boola Boola forest.

1981 Nov. 27 Plants growing in Haberlaeuch Forest. Sori developing but not mature.

1993 Jan 30 Combienbar - Errinundra.

1995 Muelleria Vol. 11 - 1995 - New species described with key to all Sticherus species in Victoria P. 103.

Sticherus ~~lobatus~~ tener. ~~Spreading~~ Silky Fan Fern

1966 Sept 27th Darlamurla.
May Bulga Park
1970 April 18th At Glen Nayook. - This fern has the pinules at approx 60° to the axis and the pinnules are entire. Silky comes from back of pinnules but I have not seen it yet.
1972 July 16th Tarra Valley
1993 Jan 30 Combienbar + Errinundra
1998 See note under S. lobatus

Stuartina muelleri

(Gnaphalium Muelleri) (Spoon Cudweed.)

1990. Sept 14th Plant along road at edge of Δ piece of land at Dutson Down Road. Miss Galbraith identified this plant. Leaves were definitely spoon shaped with long stems all radiating from centre. Flower stalk coming from centre of rosette. Rosette about 2" across.

See 2nd page

Stuartina meulleri Spoon Cudweed

971 Sept 2 Flowering at Mt Arapites.
Very small plant only 2" high Whitish due to dense ~~leaves~~ hairs. Leaves half-circle with long stems. Centre of leaves where flower is, is almost covered with hairs + so is hard to distinguish. Is this same plant as seen at Rosedale + entered under Gnaphalium meulleri. Top of leaf green & woolly. Leaves on long stems.

01 Nov 3 Growing in Newborough bush.

Stylidium despectans — Dwarf Trigger-plant

1995 Dec 6 Flowering along railway reserve opp McCauran's near underpass under railway line.
Plant about 7 cm high. leaves up stem.
Flowers with short stalks. Ovary tubular + ± 7 mm long. Petals pinkish white. Sepal ½ as long as petal. See Flora of NSW for illustration

Stylidium Graminifolium (Grass-trigger)

1966 23 Sept Flowering in school pine plantation

1967 Oct 8th Flowering in A.P.M. Bush near Reserve

Oct 22nd Flowering in A.P.M. Reserve

1968 Jan 14th " " garden.

Jan 18th " " Baw Baw. heaver broader than in the low country + flowers much darker color. Flowers only small this year but many in but so perhaps we were a little too early.

1968 June 10th One plant in flower with many flowers, in HPM Reserve.

Oct 29th Flowering in A.P.M Reserve

Nov 10th " " Clarke's Rd

17th " " APM Reserve standing 4ft high, never seen them so high lovely bright pink coloring.

Dec 29th Flowering at Walhalla - leaves ½ wide.

1969 Jan 1st " at Seniris Track

Sept 18th " on APM bush only one flower + very pale.

Oct 4th Flowering at Cowwarr.

15th Found white Trigger plant. This plant was not just a pale plant but a true white. At Cowwarr.

19th Flowering at Clarke's Road.

Nov 8th " " Wilson's Prom.

1970 Jan 5th " " Licola Rd.

18th " " Seneni's Track

24th " " Wulgulmerang

1970	Sept 19th	Flowering in A.P.M. Reserve.
	Oct 11th	" at Heyfield.
	14th	" " Briagalong
1971	Jan 17th	" on Mt Useful road lovely deep color.
	Jan. 30	Flowering at Howitt Springs and on Mt Howitt Hike. lovely deep color, plants at all stages some almost finished & some just started.
	Oct 24th	Flowering in A.P.M. Reserve
	27th	" at Reid's Corner.
1973	Jan 26th	" " Mt Baw Baw
1993	Jan 31	" " Errinundra N.P.
1994	Nov 26th	" " APM block Stradbroke Sth. Gipp. H'way
1995	Apr 12th	Growing in Drouin Water Reserve
1994	Nov 9th	" on Licola weekend
1995	Jan 15th	Flowering on Dargo "
1995	Oct 28th	" " Wonthaggi Heathlands.
1996	Jan 20th	" " Hotham weekend.

Flowers at Lanky Plain very robust but Dr Parsons says they are still this species. leaves were no more than 1½" long in these specimens.

1995	Dec 12th	Growing on Railway Reserve near Traralgon
1997	Jan 18th	Flowering on Livingstone Ck & Mt. Nugong.
1991	" 27th	" on Gelantipy weekend.
~~1999~~ 2001	Nov 3	" in Newborough bush.
	Dec 1	" " " Sandy Ck.
2006	Sept 30	" " Senenis Track
	Jan 14	" " Baw Baw

Stylidium inundatum. Hundreds & Thousands.

1970 Oct 25th Found flowering at Cowwarr. This was a very small plant about 1½" high, branched. Column sensitive flower white minute. Identified by Miss Galbraith.

1996 Nov 9th Flowering in Giffard Rifle Range. Cliff says lots at top of reserve at Yanakie.

Stylidium linearifolium

Jan 24th Flowering at Wulgulmerang.
Besides being smaller in every way, this plant is different in the middle. The raised areas have ~~less~~ more large lumps than the other triggers.

Jan. Delete from Victorian Flora. (Willis 2:647 (1972) [C. Beauglehole & R. Parsons]

Stylidium soboliferum Bristly Trigger

1971 Aug 29th Plants growing throughout the Grampians little plants that appear to grow new section each year.

Stypandra Glauca (Nodding Blue)

25 Sept 1966 Flowering at Cowwar; We also found a white variety at Cowwar

1967 Sept 1 Flowering near Glenmaggie rd turnoff. White variety also flowering

Nov 5th Flowering at Cowwarr.

1968 Sept 3rd " " "

Oct 13th " " "

1969 Aug 29th " " Granite Rock

Oct 4th " " Cowwarr.

Nov. 2nd " " "

1970 Oct 11 " " Heyfield

18th " " Briagalong

1971 Sept 3rd " at Mt Draper but only a very occasional flower. Plenty of plants.

Nov 13th Flowering at Cowwarr.

1972 Aug 23rd " " Mt Draper.

1991 Oct 12 " " Mt Haddrick

1995 " 25th " " "

2003 Sept 27 " " Dawson Railway Reserve.

Styphelia adscendens Golden Heath.

1971. Sept-1. Flowering in the Grampians.
how stiff-leafed shrub up to 1ft high.
Flowers from leaf bases - flowers tubes
about 1.5 cm long before spreading and
rolling back. Petals very hairy where rolled
back but all inside of tube hairy.
Five stamens protruding well past end
of tube about 1 cm - golden green - with
at brown end and moveable.
Leaves 2.5 cm long and ending in very fine
point; 3 mm wide, very close together.

1972 Aug 27 Flowering in Little Desert.

Suaeda (maritima) australis (Seablite)

1970 Mch 8th Flowering on shoreline at Waiarah Bay. Main stems brown & woody. Leaves succulent lanceolate curving upwards & outwards from stem. Flowers from leafbases — very tiny, stalkless & green.

1991 Aug 22nd ~~Flowering~~ Growing in salt marshes at Loch Sport.

1980 June 15th Growing in salt marshes along Seaspray - Golden Beach road. New growth on plants but could not see any buds. New stems & upper leaves quite red. Whole branch has peppery smell without crushing leaves. Old wood is quite hard. Plants only about 6" high.

1993 Feb 26th Flowering on shoreline at Red Bluff at Corner Inlet.

1996 Oct 12th Flowering at Paradise Beach near 2nd pipeline in W.P. Ellen describes it as light green plano-convex leaves, small greenish flowers, rather fleshy.

Swainsonii lessertifolia Purple Swainson-pea

1969 Aug 16th Flowering at Wilson's Prom. Flowers beautiful dark purple. Leaves hairy, greyish below smooth above – many small blunt leaflets. Flowers on erect stalks.

Sept 4th Still flowering at Wilson's Prom.

Tasmanian Plants

All rare & interesting — from Cradle Mountain.

Persoonia Gunnii

Leaves 1.5 cm long 7mm wide at widest part
All curved upwards giving spoon-like effect. Opposite
Pale green, fleshy · edge of leaf red.

Flowers: Bud 1.5 cm long cream, red at tip banana-shaped. at leaf bases I think by certainly amongst leaves.
Petals curve back on opening with fringed margins
Cream inside, stamens attached to petals & fall with petals, stigma remaining on end of ~~seed~~ fruit.

Branches brown. Much branched shrub.

Helichrysum backhousii

leaves: Tiny approx 4mm long 3mm wide very densely arranged on ~~stem~~ branch. Almost diamond shape Opposite but so close as to appear rosette-like particularly from end of branch. Branches black and also opposite.

Flowers At end of branches. Individual flower 5mm long, brown backs or involcular, tiny ends. Cluster of flowers rather open, 12 in specimen.

Microcachrys tetragona - (creeping pine)

Beautiful little plant.

leaves: So close together as to form branches, triangular shaped, edges being points of leaves.

Cones: Form at end of branches - shaped like pine cones when young. Most delightful orange-red color about 7mm long × 5mm wide

Trochocarpa gunnii

Much branched shrub with smoky purple berries

Leaves: Dark green, shiny, pointed at both ends. 5-6 mm long, 3mm wide, alternate, very tiny stalks: brown, underneath of leaf deeply grooved.

Berries: Smoky purple color, withering into hollows + humps, on stalk approx 3 mm long. Amongst the leaves. Round, flat berries 6mm across but about 3 mm deep. 4 sections inside each containing seeds I think.

Trochocarpa. cunninghamii.

Very similar to above. Leaves smaller inclining to reddish on some branches. Tiny stalks red. Suspect this one more of a creeper as specimen has definite back to it. Not so intricately branched rather just single branches from main stalk. Appears less prolific plant.

Flowers: Red bells (dull color) with stamens protruding. Bells in cluster at end of branchlet.

Cyathodes straminea

Leaves: in whorls approx 1 cm long + 5mm wide dark green above, pale blue green below. Whorls quite a distance apart up to 3 cm. leaves pointing upwards rather than spreading. Edge of leaves yellow, rip brown point.

Berry: Deep red, withery in grooves situated in centre of whorl at end of branchlet. Berry has protrusion

from centre which looks like remains of flower
Stalks or branches woody + brown + branched.

Cyathodes petiolaris (Tas. only)

Leaves In continuous whorls all up stem, densely arranged, perhaps rather more alternate than whorls but very close together. Approx 1 cm long 3 mm wide + much bigger point than last specimen dark brown points. Pale blue green underneath veins lengthways.

Berries: At leaf bases, looks as though there have been very many up the branch. Specimen just one branch no side branches although 14 cm long.
Berries pink red rather flat 5 mm wide 3 mm deep, almost covering stalk or branch with tiny stalks + pressing leaves to one side. Also have protrusion from centre but small and apparently quickly dropping off as only top ones have them. Berries with a rather withered appearance

HYPOCHOERIS

Species still same as in Willis

LEONTODON

Same as Willis only name now becomes *Leontodon taraxacoides subsp. taraxacoides.*

TARAXACUM

There are now 9 species recorded in Victoria instead of just 2 as in Willis.

2 species are native and 7 introduced. In Flora of Victoria it is recommended that the use of *Taraxacum officinale* is best avoided because of the nomenclatural complications. The native species are separated as per key:-

1.Outermost involucral bracts appressed to the inner row, always with a clear white border at least 0.5mm wide; ligules of flowers scarcely exceeding the innermost involucral bracts 2(native)

1.Outermost involucral bracts not appressed to the inner row, with at least the upper part spreading, recurved or reflexed, border present or absent; ligules of flowers mainly exceeding the innermost involucral bracts. 3

2.Cypselas rugose to the base T. cynorum

2.Cypelas smooth in the lower third T. aristum

T. cygnorum is only recorded in the extreme south west of Victoria and *T. aristum* is recorded in the sub-alpine areas of eastern ranges. These are the 2 native species. Two species of the introduced plants that are recorded near our area are *T. sp.1* and *T. section Erythrosperma* while *T. section Hamata* is recorded as widespread from sea-level to the alps , in urban gardens, farmlands and undisturbed native vegetation. Difficult to identify scientifically as so much of the plant is essential for identification. (P. 688.

CREPIS

As per Willis except that *Crepis taraxacifolia* became *C. vesicaria subsp. haenseleri* but has since become *Crepis vesicaria* subsp. taraxacifolia.

C. capillaris is common around here and perhaps *C. setosa.*

PICRIS

Picris echioides is now *Helminthotheca echioides.*

Picris hieracioides is now either *P. angustifolia subsp. angustifolia or P. angustifolia subsp. mer*xmuelleri.with the latter being most likely for this area.

The species mentioned in Willis as *P. hieracioides* var *squarrosa* is now *P. squarrosa.*

There is also a new species recorded for the north west of Victoria.

MICROSERIS

Willis has only the one species which has now been divided into three but these have not yet been given names.and are just sp. 1, sp. 2 and sp.3. They are mainly divided by the cypelas and pappus scales; but for us I think the distribution is an indication of the species. *Microseris* sp.1 is recorded for the basalt plains of western Victoria, M. sp.2 alpine and sub-alpine herbfields and M sp.3 Foothills. *Microseris sp. 3* is the only one with a common name and is the Yam Daisy or Murrnong and is the one that is widespread in Victoria

Hypochaeris (Cat's Ear)

Bracts - unequal in 4 rows

Crepis (Hawksbeard)

Bracts - 2 rows 1 shorter & distant

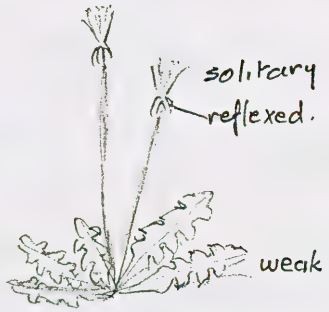
Leontodon (Hawkbit)

Bracts - 12 nearly equal

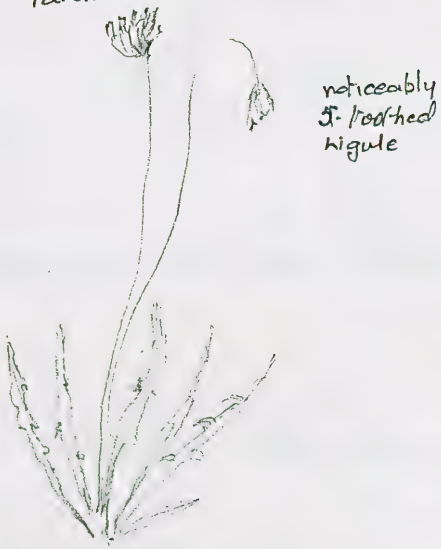
Picris (Picris)

Bracts 1 row inner subequal outer loosely overlapping in 1-3 rows.

Bracts - 1 row inner erect lanceolate + outer rows shorter spreading in several rows



Taraxacum (Dandelions)



Microseris (Yam daisy)

Bracts 2 rows subequal inner bracts 2-3 rows smaller ones at base.

Dandelions

GENUS	LEAVES			SCAPE		ACHENES		PAPPUS BRISTLES			Beaks		HEADS		Bracts	Tip of floral stem. Receptacles		Key floret	Species
	Glabrous	Scabrid	Hairy	Leafless	Leafy	Simple	Branched	Simple	Plumose	Scales	Beaks	Beakless	Single	Multiple	Hairy	Naked	Scales		
HYPOCHOERIS	deeply	lobed		✓		✓	✓		✓		✓	✓		✓			✓	All ligulate		2
LEONTODON			✓ branched	✓		✓		✓		✓	✓	✓	✓			✓		"		1
TARAXACUM	lobes pointing down			✓		✓		✓			✓		✓			✓		"		2
CREPIS			✓ usually lobed		✓		✓	✓			✓	✓		✓	✓	✓		"		4
PICRIS		✓ lobed			✓		✓		✓			✓		✓		✓		"		2
																		✱		

Species

Hypochoeris (Latin name for this plant)

Perennial ; leaves hispid ; involucre shorter than florets ; scape enlarged below head ; achenes long beaked ✱ H. Radicata.

Annual. ; " glabrous ; " as long as " ; " not " " " " beakless ✱ H glabra

Taraxacum (Bitter herb)

Leaves pointed 6 to 15 mm ; involucre bracts spreading or reflexed ; beak > twice up to 5 times achenes, achenes strongly roughened.

leaf lobes rounded 4-5 mm ; " " appressed ; " about twice length " " ✱ T. officinale

very shortly roughened T. aristum (not recorded for T grid)

Picris (Bitter)

leaves broad-lanceolate almost spiny with coarse bristles ; involucre with 3-5 leaflike bracts ; achenes slender beak as long ✱ P. echioides (Not T)

" narrow " to linear hispid no bristles ; " ⅓ never " " " " very short " ✱ P. hieracioides

Crepis (Plant named by Pliny)

Achenes 1·5-2·5 mm not beaked ; involucre 5-8 mm, downy + glandular hairs ; stem-leaves lanceolate, sessile, auriculate bases. ✱ C. capillaris

" 3-5 mm beaked ; " 8-10 mm stiff yellowish bristles ✱ C. setosa

3-4 mm " " downy + ± glandular 8-13 mm. without bristles ; peduncles very long, bracteolate, heads nodding in bud. ✱ C. foetida

4-5 mm " " " " " " " " " naked heads always erect.

Leontodon (Lion's tooth)

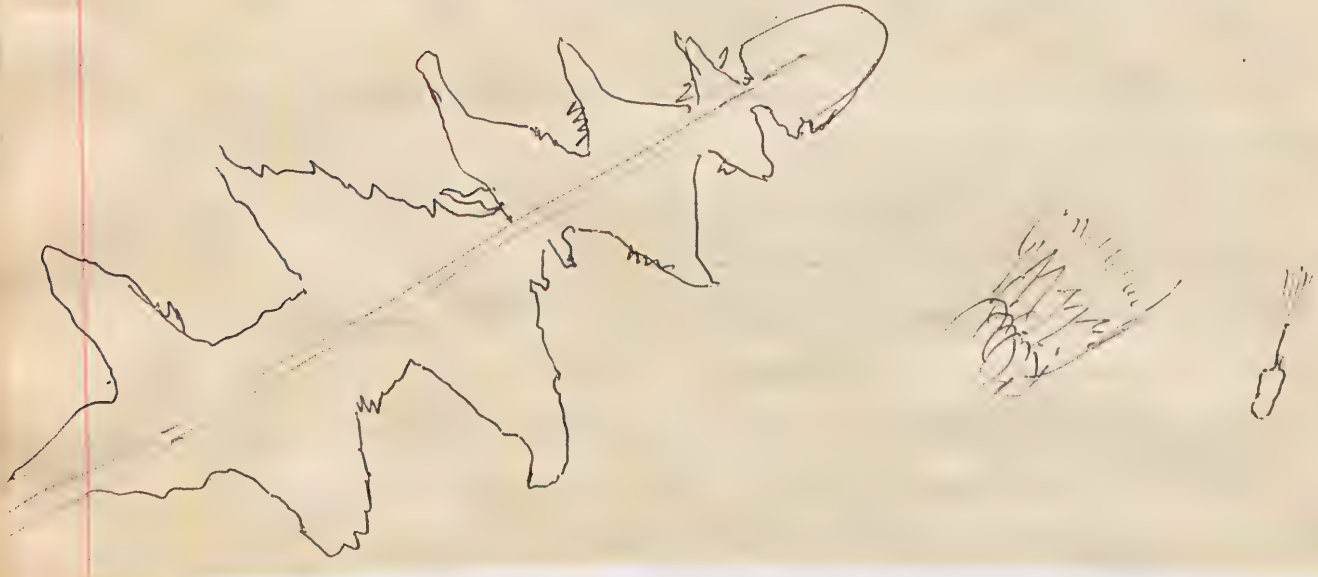
Nodding in bud. Ligule 5-toothed ✱ C. taraxacifolia

Taraxacum section Ruderalia

2004 Oct 2 Flowering at Heyfield Wetlands.
Not sure of identification yet.

Key. Outermost bracts not appressed to innerrow, upper part spreading or reflexed. Ligules of flowers mainly far exceeding innermost involucral bracts 3.

3. Cypsellas straw-coloured. 4
4. Outermost involucral bracts unbordered or with very fine border 5
5. Petiole & leaf midrib not clearly striated above 8
8 Outermost involucral bracts without cali, cone of cypsela up to 0.7mm tapering abruptly to the beak.



When we looked at the Dandelion I thought there was no problem as Taraxacum have the outer involucral bracts turned down and hollow, leafless stems. There used to be only two species the introduced and the native. In the Flora of Victoria Taraxacum comes in Group 2 of Asteraceae which has all florets with ligules ("petals") and milky latex present. The key shows involucral bracts in 2 - several series; all leaves in basal rosettes and cypselas ("seed") with filiform beak longer then fertile portion, upper part covered with short hard-pointed protruderances. That is Taraxacum. Then we have 9 species or sections with 2 species with the outermost involucral bracts appressed to inner row; ligules of flowers scarcely exceeding the innermost involucral bracts. These are both native species, all the rest with the outermost bracts spreading are introduced. So Taraxacums are no longer easy. I think our specimen was *Taraxacum* section *Ruderalia* because of the following key.

1 Outermost bracts not appressed to inner row, upper part spreading or reflexed. 3
3 Cypselas straw-coloured 4
4 Outermost involucral bracts unbordered 5
5 Petiole & leaf midrib not clearly striated above 8
8 Outer involucral bracts without cali; cone of cypsela up to 0.7mm tapering abruptly to the beak.

Taraxacum section Ruderalia

Taraxacum officinale

Taraxacums are greatly revised. *Taraxacum officinale* is now either *Taraxacum section Hamata or Taraxacum section Ruderalia.*

Key to separate theses two species is :-

1 Petiole & leaf midribs clearly striate with purple & green strands above. 2

1 Petiole and leaf midribs not clearly striate above. 4

2 Scapes without bracts or rarely with a minute bract; outermost involucral bracts not narrow and slashed into narrow pointed lobes 3

3 Lateral lobes of outer and middle leaves usually broadly falcate and rather blunt. Outer involucral bracts erect, spreading at or near to right-angled or recurved, usually to different degrees within a single head; leaves rarely hairy . T. section Hamata

4 Outer involucral bracts without calli (lumps), leaves spidery-web hairy to becoming glabrous. Outer involucral bracts curved spreading at or near right-angular, recurved or reflexed. T. section Ruderalia

TARAXACUM

There are now 9 species recorded in Victoria instead of just 2 as in Willis.

2 species are native and 7 introduced. In Flora of Victoria it is recommended that the use of *Taraxacum officinale* is best avoided because of the nomenclatural complications. The native species are separated as per key:-

1.Outermost involucral bracts appressed to the inner row, always with a clear white border at least 0.5mm wide; ligules of flowers scarcely exceeding the innermost involucral bracts 2(native)

1.Outermost involucral bracts not appressed to the inner row, with at least the upper part spreading, recurved or reflexed, border present or absent; ligules of flowers mainly exceeding the innermost involucral bracts. 3

2.Cypselas rugose to the base T. cynorum

2.Cypelas smooth in the lower third T. aristum

T. cygnorum is only recorded in the extreme south west of Victoria and *T. aristum* is recorded in the sub-alpine areas of eastern ranges. These are the 2 native species. Two species of the introduced plants that are recorded near our area are *T. sp.1* and *T. section Erythrosperma* while *T. section Hamata* is recorded as widespread from sea-level to the alps , in urban gardens, farmlands and undisturbed native vegetation. Difficult to identify scientifically as so much of the plant is essential for identification. (P. 688.

Taraxacum separated from other genera by filiform beak on cypsela. Good illustration Name That Flower P190 + description of terms P. 194.

Taraxacum aristum Austral Dandelion

1992 Jan 25" In seed in bushland near Buckely Plains

Jan 26" " " on Bogong High Plains near Mt McKay.

This plant is as big as any introduced Dandelion. The leaves are much thinner in texture, lobes are definitely rounded & obtuse. Neville Scarlet says all Dandelions have the outer involucral bracts spreading or even deflexed. These were definitely deflexed. Achene beak about twice its length.

* Taraxacum officinale. Dandelion

1994 Oct 30 In Dawson Water Reserve

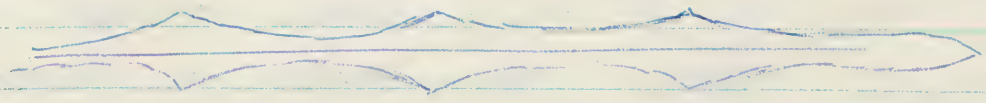
" " " Rway " This name continues to be used in Flora of N.S.W. while in The Census of Victoria it has said for several editions that it equals Taraxacum Sect. Hamalia & Sect Ruderalia.

1995 Jan 15th Recorded on Dargo weekend.
See notes under Taraxacum section Ruderalia
Not recommended to use this name now

Taraxacum — Dandelions

1973 Apr 22 Two apparently different plants flowering near the power lines on Whitelaw's Track.

1st species leaves about 4 ins long with opp. obtuse pointed lobes. leaves very thin and apparently glabrous but under the microscope they are covered with short hairs lying along leaf.



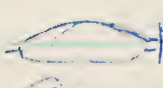
leaves all basal - no leaves or bracts on flower stalks.

Roots all coming from central area but rather thin long and spreading.

Flower-stalks about 18" long - no branches - grooved with short hairs laying along stalk and very sparse.

Involucre oblong rounded at base & spreading near petals. 2 rows of bracts one very short (also lying very close - not freely visible) & fewer in number than longer ones. - 9 to 10 larger ones ending in acute tapering point.

Cichenes - shaped like skittle with little point on end. which I presume attaches it. If you pull centre out it leaves this little point behind - pappus attached to disc and each with fine hair-like sides



I would think about 10 bristles.

Tiny grooves on the achenes are lengthwise.

2nd Species leaves about 1½" long. lobes much closer together & pointing towards base. Lobes almost triangular. Leaves covered with stout & long hairs on both surfaces but hairs well spaced & regular. Hairs visible with naked eye.

leaves basal but brack on flower stalk at each branching joint. Flower-stalks on our specimen only branched once. Flower-stalks more finely grooved than 1st specimen.

Involucre rather broad at base + flat with 3 rows of bracts each tipped with brown + tending to spread - easily visible - margins + tips almost transparent.

Root. Very broad + dividing + then each rootlet dividing into 2 again.

very strong + thick except final threadlike rootlets.

Achenes not developed enough to see the bristles but did have one flower earlier which showed developed achene with ridges of rings with points or fringe

1996 Jan 20th Will try to get mature flowers of both specimens. Flowering at Hotham weekend. Think it was just T. officinalis as it had the right lobes on the leaves even though the leaves were very big and thin + rather yellowish.

Tasmannia.

(Drimys) lanceolata. Mountain Pepper

1971 Jan 19th Growing at Mt Useful – not in flower. lanceolate leaves appx. 3" long with red main rib on top.

Jan 30th Growing at Howitt Springs and on Mt Howitt Hike. These plants were D. xerophila.

1972 Feb. Plants growing at Mt. St. Gwinear. Mr Morrison reports D. lanceolata has black berries.

1973 Jan 26th Growing at Mt Baw Baw

1978 Jan. Synonymous with Tasmannia lanceolata. A.C. Smith Taxon 18(3) 217 (1969) [C. Beauglehole & R. Parsons]

1992 Jan 25th Plants in berry on Buckety Plain.

1993 Jan 31 " " Errinundra N.P.

1995 Jan 15th " on Dargo weekend.

1994 In Muelleria Vol 8/2 Mch 1994 studies on Tasmania with key + descriptions to Victorian taxa. + diagrams.

Tasmannia xerophila

~~Drymis~~ Drimys xerophila (Mountain Pepper alpine)

1968 Jan 18th. Found plant but no flowers. Little leaves in rossettes ~~down~~ round stem. Very bitter.

1969 Nov 23rd Plants almost in flower - plenty of Buds. Also with purplish berries.

1971 Jan 30th Plants growing on plains at Mt Howitt Springs + on Mt Howitt Hike.

Mr Morrison reports D xerophila has reddish berries.

1978 Jan Synonymous with Tasmannia xerophila M. Gray Contr Herb Austral. No 26 : 5 (1976) [C. Beauglehole + R. Parsons]

1994 Sept 9th. Baw Baw subsp. has separate name now T. ~~xerophila subsp. robusta~~ vickeriana + the one from the Errinundra Plateau is T. xerophila subsp. robusta.

1995 Jan 15th Recorded for Dargo weekend.

1996 Jan 20th " " Hotham "

1997 Jan 18th " " Mt. Nugong.

1994 In Muelleria Vol 8/2 Mch 1994 Key + descriptions of Victorian Taxa & diagrams.

Telopea oreades — Gippsland Waratah

1993 Jan 31 Lots of plants along roadside in the Errinundra N.P.

Have also seen these plants in flower about October in the gully along Fichre Creek along road from Club Terrace to Cann River.

Tetragonia implexicoma Bower Spinach

1969 Aug 16th Flowering at Wilson's Prom. leaves spoon-shaped, succulent, with yellow flowers starry on quite long stalks.

1971 Aug 22nd Flowering at Loch Sport.

1978 Sept 23rd Flowering at Bear Gully near Cape Liptrap. Flowers with long stalks.

1996 Oct 12th Flowering at Paradise Beach near 2nd pipeline in N.P.

2006 July 30th " " Mr Heddrick. (Photo on Ralph's CD)

Tetragonia (expansa) tetragonioides (New Zealand Spinach)

1970 Mch 7th Flowering along shoreline at Waratah Bay. Very robust plants. Leaves succulent, flowers almost sessile.

1971 Aug 22nd Flowering at Loch Sport. At least I think it was flowering.

1978 April 28th Plants growing on sand dunes at Wreck Beach.

1978 Sept 23rd Flowering at Bear Gully near Cape Liptrap with almost sessile flowers.

1992 ~~Feb~~. Apr 25th Plants growing in Nooramungo Coastal Reserve at Port Albert. Fruit present with almost no stalks.

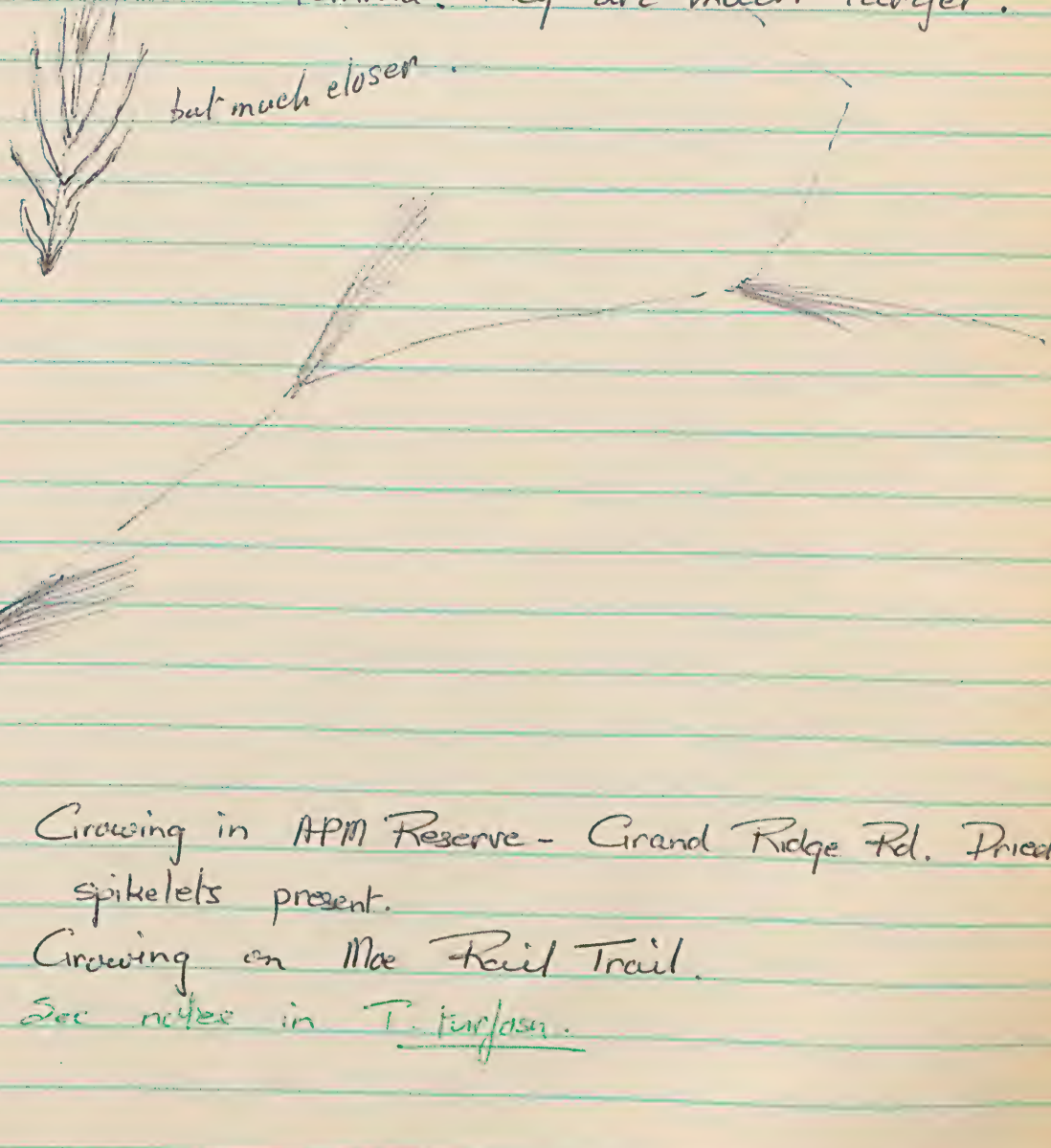
1993 Feb 26th In fruit at Red Bluff beach near Wilson's Prom

Tetrarrhena acuminata. Panicled Rice-grass

1995 Feb 6th Plant growing along roadside on Andersons Track where large Tongue Orchids grow. I hope this identification is correct but it is recorded by Cliff in K in Melbourne Area.

Plant decumbent & jointed with inflorescence a cluster of spikelets.

Spikelet consists of 2 glumes which are very small & then 2 larger "things" that I think may be sterile lemma. They are much larger.



1997 Apr 5th Growing in APM Reserve - Grand Ridge Rd. Dried spikelets present.

Sept 6 Growing on Mac Rail Trail.

1959 See notes in T. pungens.

Tetrarrhena distichophylla. Hairy Rice-grass

1998 July 25 Growing in 1000 acres Flora & Fauna Reserve at Traralgon South.
I am not sure of this identification is correct as I do not have any spikelets, just 2 glumes; but the stems are definitely decumbent & pubescent.

1999 See Notes under T. turfosa

Tetrarrhena juncea Forest Wire-grass

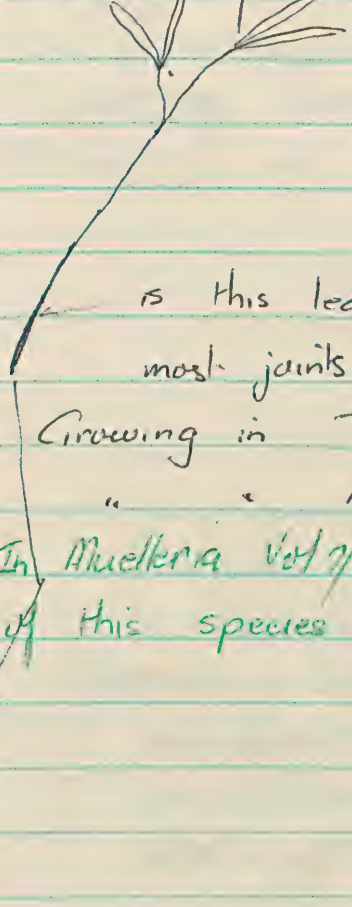
1995 Feb 6th Plants growing along Anderson's Track near where large Tongue Orchids grow.
This plant is decumbent, longer than T. acuminata but inflorescence terminal with very small spikelets.
Plant scabrous to touch.

1995 Apr 12th Growing in Drain in Water Reserve.
1997 " 12th " " " APM Reserve - Grand Ridge Rd.
2000 Dec 3rd In seed in Sweetwater Ck. Reserve.
2004 Apr 3 Plants with remains of seeds in Colley's Rd. Block.
1989 See notes at end of T. pubescens.
2006 Nov 11 Growing at Springsure area.

Tetrarrhena turfosa Smooth Rice-grass.

1995 Feb 6th Plants growing on Anderson's Track near where large Tongue Orchids grow. I hope this identification is correct but Cliff records an unnamed species for K Melb. Area and Flora of Victoria record it for T.

This plant is more or less erect, especially at apex and about 3.5 ft high. It was not in fruit but only had what I think was 2 sterile lemma. Again the stem is jointed + growing at an angle from the previous joint. Whole plant glabrous as far as I can ascertain but most inflorescences consisted of two spikelets on long stalks Will try to check it out later in year.



← is this leaf very close to stem? One at most joints

1995 Apr 12th Growing in Drouin Water Reserve.
1997 Sept 30th " " Mac Rail Trail.
1989 In Muelleria Vol 7/1 Apr 1989 description + drawings of this species with notes of closely allied species.

bauerifolia

Tetratheca (Ericifolia?)

1966 Sept 17th Flowering in the Rosedale reserve. Flowers had long fine stalks at least ½" long. This was still Pilosa as leaves were not in whorls.

Sept 24 Flowering at Cowwar

1967 June 19th " at reserve at Eden. Leaves in whorls of 4 or 5 leaves ⬭ almost sessile leaves paler below. Whorls approx 2 cm apart. Shrubby plant like other Tetratheca's but have not seen a plant with many flowers. (Only flowers at end of stalk). Also flowering on King Hway.

Sept 1 Flowering along Cowwarr – Boola. Boola Rd

1968 Oct 13th Flowering at Cowwarr.

Nov 3rd " " Semini's Track.

1969 Oct 11th " " Cowwarr.

Nov 2nd " " Briagalong

1970 Oct 11th " " Heyfield

17th " " Briagalong.

1978 Jan. Synonymous T. bauerifolia. J. Thompson Telopea 1 No 3 (1976) [C. Beauglehole + R. Parsons]

According to Mrs J Galbraith

T. glandulosa grows in N.S.W & Vic (T)

T. ericifolia " " N.S.W.

T. bauerifolia " " Vic.

Tetratheca. Ciliata

1966 Autumn Transplanted into Reserve at South End.
24 Sept Flowering Darlamula and in the garden
1967 29 Aug Flowering on hill above track. Buds nearly white but flowers pale mauve
Oct 8th Flowering in A.P.M Reserve
13th " at Labertouche
1968 Nov 17th " " Dead Horse Gully
1969 Sept 20th " " APM Bush.
1970 Aug 29th " " Darlamurla.
Nov 23rd " " Lily Pily Gully.
1971 Aug 28th Flowering at Wildflower Sanctuary at Stawell and throughout the Grampians. Flowers are large and very deep in colour. Appeared to have longer stems to flowers but calyxs were still turned back.
Sept 25th Flowering at Toronga Falls.
1972 Aug 25th " at Little Desert. Leaves orbicular 3 reasonably close together making a whorl. Calyx with spreading sepals but not recurved as in Traralgon Sth.
Aug 29th. Flowering in Grampians.
1973 Aug 25th " " Boola Boola forest.
1989 Oct. 24th Peg + Jim brought back specimen from Little Desert. It had alternate leaves (no whorls) pointed at both ends although tip point was because margin was recurved but it would never have been round at tip. Leaves 1cm long, wrinkled on top surface. Dark green above, paler hairy below, recurved margins. Branches wrinkled when dry, + hairy may have had glands when fresh. Flower deep magenta, pedicle longer than leaves, many long hairs with tiny gland at end. Calyx reflexed to straight from flower could be ciliate under high magnification.

1994 Jan 17th Flowering on Thomson River Walk near Walhalla Rd. bridge.

Nov 9th Flowering on Licola weekend.

1996 Nov 23rd " " Old Port Trail in Nooramunga Coastal Reserve.

Tetratheca labillardieri (glandulosa)

1969 Nov 2nd Flowering at Briagolong. Glands on end of hairs. Pale mauve flower.

1971 Jan 17th Plants on road home from Mt Useful (Vf)

1973 Aug 11th Plants in bud in Boola Boola forest. Don't know if this is variable plant or if some plants found were hybrids. ~~Some~~ plants in flower had glands on hairs visible to naked eye & every long hair appeared to have a gland on the end though there is a vesture of short white hairs close to stem or calyx. Hairs with glands are reddish with black gland.

Other plants have the white hairs much denser & longer but hairs carrying glands are once again red with black glands. The glandular hairs are very sparse especially on branches & stems at lower or basal areas of plant. On the calyx, stem to calyx & some other new growth towards tips of branches, there are more glandular hairs but they are still sparse & not noticeable unless using glass or microscope. These latter plants are not so well advanced with their flowers either, buds are only tiny yet.

There is also a difference in leaf arrangement. The very glandular plants have alternate single leaves while the less glandular ones have the leaves arranged in 3s ~~two~~ one side of branch & one on other side of branch but not in whorls.

Flowers on glandular plants appear singly at leaf bases, while less glandular plants

have ~~flowers~~ 5 to 6 flowers from the leaf bases of the 3 leaves.

1978 Jan. Synonymous T. habillardieri.
J. Thompson. Telopea · 1 No 3 (1976)
[C. Beaugle'hole & R. Parsons]

1994 Nov 9th Recorded on Nicola weekend.

Tetratheca Filesa Hairy Pink-bells

1965 White variety still flowering in September.
1966 " " flowering June.
Purple " " " not very many flowers.
Oct 9th Purple variety flowering everywhere now. White variety still flowering.
1967 Oct 1st Flowering in T'gon Sth Reserve.
Oct 8th " " APM Reserve; also white variety.
1968 Sept 10th Flowering in Cormandale Reserve.
~~Sept 5th~~ " " Shingle Creek Reserve. also white variety A.P.M. Reserve.
27th Flowering T'gon Sth Res.
Nov 17th " Dead Horse Gully.
1969 May 31st Just one or two flowers on some plants in A.P.M. Res.
July 26th Just one stalk of flowers flowering at Darlamurla. Many plants in bud.
Aug 9th Flowering at Rosedale.
29th " " Granite Rock.
On roadside near Granite Rock Max found plant with edges of leaves yellow - probably a sport.
Sept 13th Flowering beautifully at Rosedale lovely dark coloring
21st Flowering in APM Reserve
1970 Mch 25th Just a few flowers in Cormandale Reserve
Apr 21st Flowering on road to Venus Bay.
Aug 9th " in A.P.M. Reserve. also white variety flowering.
23rd Flowering in Cormandale.
Sept 5th " at new area at Rosedale.
" 15 " " T'gon Sth Reserve.

1970 Sept 13th White variety of pilosa flowering in A.P.M. reserve.
" 19 Flowering at Chester Park.
Oct 1 " in new area Rosedale.
" 11th " at Heyfield
" 17th " at Briagalong
1971 June 6th Just one flower on several bushes at Rosedale.
Sept 19th Flowering at Whitelaw's Track T.S. and Chester Park.
Oct 10th Flowering in APM reserve. White variety flowering as usual and also in another area at edge of reserve. Also flowering in Rosedale area. All tetratheca seems darker than usual could this be because of dry weather, or at least dry winter. + Rosedale
Oct 24th Flowering at Reid's Corner
1972 Sept 10th " " Rosedale
1973 May 13th " " "
Aug 25th " " Boola Boola
1993 Aug. 30th " " Mullundung. Mt Heddrick
1994 Oct 12th " " T'gon Sth Reserve
1995 Oct 28th " " Wonthaggi Heathland ssp. latifolia
1996 In Muelleria Vol 9 1996 Article on T. procumbens + key separating it from T. pilosa (& ssp.). Description & diagram.
2001 Apr 3 Plants growing in Colley's Rd. Block. Leaves in 3s. ∴ ssp. latifolia.
2006 Sept 30 Flowering at Serenis Track

Tetratheca stenocarpa

1967 Oct 13th Flowering at Laberlouche. Very slender plant with long flowering stems. Flowers pink to white.

1969 Oct 12th Flowering at Tynong.

1997 Oct 25th " " Laberlouche.

Teucrium corymbosum Forest Germander

1988 Mar. 2nd Plant almost finished flowering in Ulrella Reserve, Trafalgar. Plant belongs to Labiatae & has an unusual flower - petals all on one side of the anthers although Black says there was small rounded petals below but I did not notice them. Flowers white on long common peduncle and also long pedicles in groups of 5 or 6, calyx persistant after flowers have fallen. Peduncles axillary & terminal. Leaves opposite, ovate-lanceolate, serrated, glabrous above & hoary beneath. Stems square Plant about 3ft high Black says Australian species are all endemic.

1994 Nov 9th Plant flowering in Macalister Gorge area where they found many plants of Goodenia macmillanii. Licola Weekend.

Thelionema caespitosum (Stypandra Caespitosa) Nodding Blue lily (Tufted lily)

1966 Dec 4th Flowering in Tigon Sth Reserve. Both blue & white varieties.

1967 Nov. 4th Flowering in Wolfe's Swamp. All Colors from Blue to white.

Dec 31st Still flowering Tigon Sth Res.

1968 Jan 28th - " - Wolfe's Swamp.

Oct 24th Flowering along Call Road & Reid's Road. mostly white.

1969 Jan 1st Flowering along Semini's Track both blue & white.

Sept 28th Flowering at Rosedale.

1970 Jan 18th Flowering at Semini's Track.

2001 Nov 3 " at Newborough bush.

Explanation of the terminology used

The genus *Thelymitra* is unusual in the Orchidaceae in that the six perianth segments generally differ very little from each other in terms of size, shape and ornamentation. The labellum does not bear any hairs, calli, glands, ridges, lobes, teeth or fringes and is apparently not involved in pollination. Since the perianth is virtually actinomorphic and generally lacks characters by which to distinguish the species, traditionally the structure of the column has supplied most of these distinguishing characters. Over the years a terminology has evolved to describe the column structure in *Thelymitra*, but some of these terms are poorly understood and some have never been defined adequately. Below is an explanation of some of the terms commonly used in this paper; most have a traditional usage although this has often not been well understood while others are used for the first time.

Column (gynostemium): The column is exposed in the centre of the flower, it lacks a free filament and style, is short and thick and broadly winged from below the stigma to the level of the anther or beyond. The apex is usually 3–5-lobed and is often ornamented with trichomes, fringes, teeth, calli, glands, tubercles or lobes. In members of the *T. pauciflora* complex the apex of the column is more or less tri-lobed with trichomes adorning the two lateral lobes.

Post-anther lobe (mid-lobe): This structure lies beyond the point of insertion of the anther and of the lateral lobes, and it is usually of a different colour to the rest of the column. It has a complex vascular supply always associated with that of the functional anther and may be regarded as an outgrowth of the filament. In some species it is represented only by a short flap or a band of small calli crowded across the back of the anther. In most species it extends well beyond the anther with a free margin that may be plain, undulate, toothed, notched or variously ornamented with tubercles. At its maximum development (such as in the *T. pauciflora* complex) it forms a fleshy, tubular hood that is variously open on the ventral side and overhangs and obscures the anther. The apex of this tube is usually bright yellow and is often variously cleft into two distinct lobes that have shallowly toothed and often thickened margins.

Inflation of the post-anther lobe: In the literature the post-anther lobe has often been described as 'inflated', particularly in reference to some members of the *T. pauciflora* and *T. nuda* complexes. In this account the term inflated is used in relation to those taxa in which the shape of the post-anther lobe is noticeably bulbous and is discontinuous with the shape of the column lower down. This is often obvious when viewing the column in profile, but is usually more evident when viewing it from above and behind.

Post-anther lobe extension: This term is used in this account for the distance that the post-anther lobe extends beyond the point of insertion of the lateral lobes. This measurement varies considerably from taxon to taxon and is sometimes useful in helping to define the species.

Post-anther lobe orifice: In the *T. pauciflora* complex the orifice at the apex of the post-anther lobe varies considerably in size and shape. It may be more or less circular, narrow-elliptic or just a slit depending upon the degree of notching and dorsal compression of the post-anther lobe. In most species the orifice is rather large, indicating that the post-anther lobe does not contract greatly towards the apex. In a few species (e.g. *T. malvina*) the orifice is quite small, indicating a significant contraction in the post-anther lobe towards the apex.

Lateral lobes (column-arms or lateral staminodes): These two structures lie one each side of the post-anther lobe and of the anther and extend forward or upward and often converge. They are each supplied by a single unbranched vascular bundle and are thought to represent staminodes. They may be flat and ribbon-like, terete and finger-like, straight, curved, twisted spirally or bent sharply, and are usually ornamented with lobes, teeth, tubercles or trichomes. The lateral lobes are finger-like and trichomic in members of the *T. pauciflora* complex, but may be straight, curved gently, bent sharply, parallel or convergent.

Supra-anther lobe: This is a fleshy, rod-like, often clavate organ that is decurrent on the dorsal surface of the column and is situated mostly above the anther and the post-anther lobe. It does not have its own vascular supply and is best thought of as an appendage of the column. This organ is peculiar to the *T. fuscolutea* complex and in the literature has generally been misinterpreted as the post-anther lobe.

Trichomes: These are the hair-like structures present on the lateral lobes of many *Thelymitra* species, including those in the *T. pauciflora* complex. They are each 1–2 cells wide throughout their length and may be thickened and glandular at the apex. They may extend along nearly the entire length of the lateral lobe in a toothbrush-like arrangement, or be concentrated mainly in the distal half in a more mop-like arrangement. In some species adjacent trichomes may be partially connate at the base. The trichomes are usually white, but may be mauve, pink, cream or yellow in some species.

Auxiliary lobes (accessory lobes or side lobules): Several species of *Thelymitra* have a pair of distinct lobes between the post-anther lobe and the lateral lobes. These have no vascular strand and are most accurately described as being part of a tripartite post-anther lobe. They tend to be fleshy with irregularly jagged margins and sometimes have small surface tubercles. In the *T. pauciflora* complex the auxiliary lobes are often completely absent or they may be reduced to a pair of small incurved spurs or bumps on the distal margin of the post-anther lobe.

Anther: In *Thelymitra*, the anther is usually small, ovoid, and situated entirely between the column wings. The connective extends beyond the pollinia into an apical beak-like projection of varying size. The anther may be entirely above the stigma or variously obscured behind it. In the *T. pauciflora* complex the anther is usually inserted about half way along the column and is most often entirely above the stigma.

Pollinia: Members of the genus *Thelymitra* contain four pollinia in two groups of two. In the *T. pauciflora* complex the pollinia are loosely bound and friable, with the monad pollen grains often scattered about the column even on flowers that have not yet opened naturally.

Stigma: The stigma in *Thelymitra* is more or less bi-lobed at the apex, usually quadrate or transverse-elliptic in shape and located at the base of the column on a thick stalk.

ORCHIDS - Glossary

THELYMITRA

Extra terms .

Viscidium -circular centre of disc

Stigmatic surface - is just below the viscidium on the column near the basse

Anther beak - growth in front of the lobes and between them

Tepals - when petals and sepals are similar

Sterile bracts - think these may be at the flowers or at least the top flowers No

Fertile bracts - think these are on the ovary but suspect they may be on the scape in other genera No

Pollinarium - think this is the whole of the area around the pollinia

(where I have used 'think' it means I can't find as definite explanation)

Sterile bract- not subtending flower.
Fertile " think " "

J. H Jeanes
Muelleria Vol. 19 2004
" " 24 2006

Thelymitra antennifera Rabbit-ears.

1973 Sept. 5th In bud near lake Eppalock - Bendigo.

aristata

Thelymitra (Circandiflora)

1966 Nov 13th Flowering along Cormandale Road.
19th " at Dead Horse Gully.

Deep purple blue perianth 1" across.
Scape:- 1ro 3 ft
Leaf :- Broad, channelled, ½ height of scape. 3 stem bracts.
Sepals are darker - more reddish than petals.
28 flowers on scape with 18 out at once.
Column :- Almost square, greyish collar, very pale yellow crest.
Column Appendage - stem 3 mm, very separate white hairs, pointing straight out from flower.
Ovary :- 2 cm.

1969 Nov 8th Flowering on heathlands at Wilson's Prom.
1970 May 21st leaves coming up.
1975 Nov 2. lots of plants flowering along Anzac Road in Mullungdung Forest. These specimens have white & Yellow brushes but distinctive characteristic was the very flat tapering mid lobe of the column. From front From side

1978 Jan. Synonymous T. aristata H S George
Nuytsia 1 : 193 (1974) [C. Baughlehole & R Parsons]
1995 Oct 28th Flowering on Wonthaggi Heathlands.

benthamiana.

Thelymitra (fusco-lutea) Blotched Sun Orchid

1990 Nov. 13th Flowering on Five Mile Road on Wilson's Prom. near the two damp areas + on both sides of road at first one. Seemed to like damp areas as second site had all plants in a gutter or drain going towards the wet area.
Another interesting feature was that the flowers appeared to be in one plane although this is not so obvious when the flowers are fully out. Leaf was short + very broad for a sun orchid. Column hooded the rostellum which was elongated into a narrow extension. Lateral lobes of column very expanded + toothed giving effect of almost a platform more than a hood. A very interesting orchid, golden yellow blotched with reddish brown.

1984 Nov. early. Also photographed this orchid in same area.

1 - Jeffrey Jeanes has an article "Restoration of the *Thelymitra fuscolutea* complex of southern Australia". It includes *T. benthamiana* which grows in W.A., S.A., Vic and Tasmania, & stating it is strongly fire-stimulated in the eastern states.
There are also 6 other Thelymitra species in this complex, all endemic to southwestern W.A. There is a key and descriptions for the 7 species.

Muelleria Vol. 24 2006

Thelymitra brevifolia

2006 Dec 12 Flowering at Longford. This species is not in the census 2003 but is in Ralph's books. It has a red midlobe compared with the yellow one in T. paucyflora (Photo in Ralph's CD)

7mm A4

Thelymitra Carnea (Pink)

1966 Oct 9th Flowering in our reserve.
1968 Oct 29th " " APM "
1997 Oct 25th " at Laberlouche. Flora of Victoria Vol 2.

Key states T. Carnea has column arms, oblong longer than wide, thickish, slightly toothed on margins (whereas T. rubra has finger-like papillae on column arms), anther point higher than mid-lobe, sepals not apiculate (short sharp flexible point).

circumsepta.

Thelymitra (retecta)

1978 Dec 18th Cirrustree Swamp Road in the big Swamp. Identified by C. Beauglehole. Photographed.

1984 Dec 29th Checked swamp + found many plants finished flowering but we did find one in bud.

1990 Dec 15th Checked swamp + found quite a number of plants in bud. Suspect it will take at least another week for them to bloom. Plants in swamp near where smooth barked eucalypts came down to edge of reeds.

Thelymitra cyanea Rare Veined Sun Orchid

1989 Jan 14th Flowering at Wulgulmerang. Dad photographed. Very like T. venosa but it differs in having the column-appendages horizontal & straight with jagged teeth-like ends, not erect & coiled as in T. venosa.

See 2nd page

cyanea.

Thelymitre (Venosa) (Veined)

1967 Feb 6th Flowering in swamp on top of Erica.

Leaf :- Triangular

Scape :- 9 ins 2 stem-clasping bracts + 1 small floral bract for each flower.

Dorsal Sepal + lateral Petals: similar + heavily veined 1 cm long 6mm wide.

Lateral Sepals: 1 cm long 4 mm wide, narrower than above, plain with one faint vein down middle.

Bottom Pepal: 1 cm long 5mm wide perfectly plain blue.

Column :- As far as I can see no hairs or crest on mid lobe only a protuberance with 2 diverging tips or perhaps bifid apex, pointing out of centre of flower horizontally except at tip which is slightly up-curved. Collumn appendages or lateral wings erect and curled or coiled. Description fits T. cyanea.

Ovary :- 5 mm

1968 Jan 18th Only in bud at Baw Baw but lots of stalks.

1970 Jan 24th Flowering at Rocky Plains, Wulgulmerang.

1972 Jan 30th . . Mt Howitt area.

Feb. . . Mt. St. Gwinear.

1973 Jan 26th . . Mt Baw Baw even a white specimen.

1997 Jan 15th Flowering at Bentley's Plain.

2001 July 11th Slide 5506 T. cyanea appears to be T sp. aff venosa ~~cyanea~~ with undulating yellow mid-lobe & a few hairs

see p 3

cyanea

[redacted] Thelymitra (venosa) Veined Sun-orchid

1994 Jan 16th Flowering at Mt. St. Gwinear & Mt. Erica.

2001 June 30th According to Pictorial Guide to Wild Orchids of Victoria by Jeanes & Backhouse Slide 5506 in our collection is actually T. sp. aff erosa which is recorded in the Otways. We photographed it at Wulgulmerang area.

T. venosa is now a N.S.W. species & the Victorian species are either T. cyanea or T. erosa or the above. T. cyanea is widespread in eastern Victoria, T. erosa is confined to south & east Gippsland & T sp. aff erosa to far east Victoria. T erosa is at lower altitudes e.g. Wingan River.

2003 June Name change in 7th ed. of Census

2006 Jan 16th Flowering at Bau Bau.

Feb 26th " " Mt. St. Gwinear.

Thelymitra epipactoides — Metallic Sun-orchid.

1996 Oct 12th Flowering in reserved area + on other side of road just past lake Reeve at Golden Beach.
Also flowering at Paradise Beach near 2nd pipeline in W.P.

1999 Oct 1st Flowering at Golden Beach 310 plants this year but the biggest majority from 3"-9" high although a few reached 15". This may be because last year + this year have been very dry during winter.
Also flowering at Paradise Beach but many stalks mown off. A couple of plants in unmown area reached 15".

Thelymitra Flexulosa

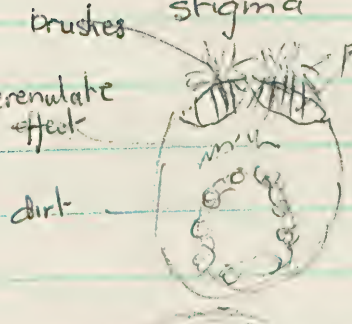
1966 Oct 30th Flowering on the Rifle Range.
1968 Oct 29th " " " "
1969 Oct 12th " on Tynong North Road.
Nov 8th " at Wilson's Prom.
1975 Oct " ? Mullungdung Forest

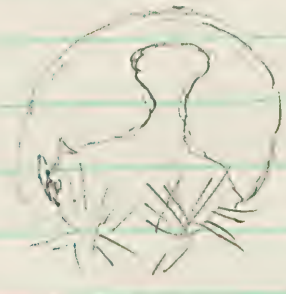
~~Calaclenia~~ Thelymitre X Irregularis

1970 Oct 25th Flowering at Cowwarr.

Cannot describe plant as we only had one flower. Dad says there were 4 flowers on stalk but only one was open.

Column: is 3 lobed - lateral lobes ending in bushy yellow tufts. Mid lobe with a couple of indentations near lateral lobes plain on one side but cannot see on other side, then mid-lobe having real hooded effect but open at top: all bright yellow. Pollenia under the lateral lobes but the "stigma" appears to be at the base. It has dirt attached all round it. There is a crenulate effect towards the back but this could be dirt.





Top of column. Mid lobe reddish brown below top.

Whole column app. ·5cm high.

Petals - Deep pink with fine purplish spots. Petal behind column appears broader but this may be because it is recurved. 1·4cm long & app. ·6cm wide

Ovary: 1·4cm long grooved deep reddish with tiny hairs lying flat but pointing up ovary.

Stem: Flower has stem 1·2cm long.

1925 Jan. Hybrid of T. ixioides - T. nuda

[C. Beauglehole - R. Parsons]

Thelymitra Ixioides (Potted)

1966 Oct 29th Flowering in our reserve
1967 Oct 22nd " along Clarks Rd.
Nov 4th " Wolfe's Swamp
1968 Nov 17th " in A.P.M. reserve

The mid-lobe is very crested and lower than the hairs. The lateral lobes are very conspicuous as they are reasonably long & pointing out from flower. Whole column has very serrated appearance, not at all smooth.

The Column appendages are on quite long "stems" and the hairs come from all around the 'stem" giving the impression of a miniature mop. "Stem" on upwards angle from centre of flowers & hairs continuing at same angle.

There was no doubt as to identification as all flowers had spots on them. (At the October meeting of L.V.I.F.N.C. Mr Morrison brought along a lovely pinla T. Ixioides with the spots. He found it up Cenoa way.)

Column top or crest was bright yellow to almost orange

Oct 17th Flowering in APM Reserve.
Nov 19th " " "
1969 Nov 2 " " Briagalong These flowers were blue and dotted but the brushes were a definite pink. See slides.
Nov 8th Flowering at Wilson's Prom - Heathlands.
1970 Oct 11th " " Heyfield.

1971 Nov 13th Flowering at Cowwarr with distinct pink brushes.

" 13th " " Reid's Corner

1972 Jan 30th " " Mt Hewitt area,

1975 Nov 2 " " Mullungdung Forest.

Brushes from white to deep pink but all with spots.

1994 Nov 26th Flowering in APM block Stradbroke Sth. Gipp. Hway

Dec 28th " " Tgon Sth Reserve

1991 Dec 12th " " Mt Heddrick

1995 " 28th " " Wonthaggi Heathlands.

Dec 12 " " Railway Reserve near Traralgon

2001 Nov 3 " " Newborough Bush.

Dec 1 " " " Sandy Bush.

2003 Nov 1 " " Edward Hunter Reserve.

Thelymitre matthewsii Spiral Sun-orchid

1989 Nov 27th Tiny plant about 2" high which was a straight section + then a perfect spiral in funnel shape widening towards the top. It appeared to be of a flat or narrow rectangular section.
As this plant was growing on Massey Rd in Mullungdung Forest ½ way down hill towards the bridge from Goodwood Road and this was where we were asked to look for T. matthewsii previously I am suggesting that it may be a none flowering leaf of this orchid This tiny plant was on the left-hand side of the road. Hope to check again next year.

1991 Sept. 5th Shown flowering plants by Ruth Clark. Plants were growing on Orbost side of Cienca on track off highway on left hand side going to Cienca - was old highway. Plants with buds that were not open at 11 am but when we went back at midday they were open + Ollie photographed them. Plants are very hard to see Ruth does not think the flowers open again once they are pollinated. She thinks the flowers need humidity rather than sunlight although it was a sunny day

1991 Sept 14th Checked area at Mullungdung and found two plants that had flowered with bottom of leaf expanded to enclose the flowering stem. There were 10 other leaves that we could find but no more buds or spent flowers

1993 Sept 5th Found 16 leaves of which one had bud eaten off + one had bud still on plant. Area of plants was extended with 9 in last year's area + rest outside.

Thelymitra Media

1966 Nov 6. Flowering on Clark's Rd.

Scape :- 8"

Perianth :- ½" across Deep blue to nearly white.

Leaf :- grooved V shaped. 2 stem bracts & a floral bract for each flower.

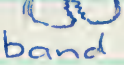
Sepals & Petals :- The same as each other.

Column :- ∩ shaped. Slightly winged, purplish color with prominant black or brown collar. Yellow crest deeply cleft. Appendages 1·5 mm hairs erect and white.

Ovary :- 1 cm

1967 Nov. 15th Flowering Calligiee. Flowering in table drains along road from Cormandale through bush

1968 Nov. 17th Flowering at Dead Horse Gully.

Mid-lobe of column very slightly serrated or crested but edge bent over until both sides are almost meeting  . Top yellow with very dark ~~clear~~ band under the column lobes. Lateral lobes not very distinct - almost appear part of mid lobe. Hairs erect but not very thick and above the mid-lobe. Miss Galbraith uses the word depressed with reference to mid-lobe & I feel this is a very apt word as it looks as if the edges have been bent over.

Nov 23rd Flowering Morwell National Park

1971 Nov 17th " at Reid's Corner.

1972 Jan 30th " Mt Hawett area.

1974 Dec 7th " Tamboritha - Bennison Plains.

1990 Jan 28th Flowering at Mt Useful Turnoff on Connor's Plain Road was plant Ruth Clark decided was an aberrant form of T. media. It had an extra blue protusion between the column brushes. I mentioned it to Dr. Parsons & his reply stated that Dale Tonkinson had seen similar plants at Wonnangatta Station. Dale will tell. CFh's Simon Crapper for CFh records.

Probably T. circumspecta

1990 Oct 30 Recorded for Dawson R'wey Reserve.

1998 Oct 30 Flowering in 1,000 ac. Florax Fauna Reserve T'gon Sth.

2000 Dec 3rd " " Sweetwater Ck. Reserve.

2011 Dec 1 " " Sandy Ck bush Newborough

nuda

Thelymitre (aristata) (Scented)

1967 Nov 4th Flowering at Wolfe's swamp
1968 Oct 13th " " Flynn.
Nov 10th " Pair Shingle Ck. Reserve.

Scape 38 cm 9 flowers.
Flower 2 cm across - blue.
Ovary 1½ cm grooved.
Bracts (fl) at each flower reaches the top of the ovary.
(st.) 2 stem bracts lower down - stem clasping.
Leaf. 25 cm long 9 mm wide. Completely stem clasping at base - yellowish ~~brown~~ green with brownish markings - probably weathering
Stem: very reddish 3 mm wide.
Column: Mid lobe not crested, smooth, brown with yellow top.
lateral lobes:
Column Appendages: not very hairy - tufts from end on one side - white - not as high as columns or mid lobe.
Buds: very pointed
Flowers not open all day.

1970 Jan 1st Flowering at Tamboritha Saddle.
These specimens were very pinkish blue
Oct 11th Flowering at Heyfield.
19xx Nov 12th " " Flynn
1975 Oct - Nov 2 " " Mullungdung Forest.
1978 Jan. [See C Beauglehole & N. Parsons]
1994 Nov 1. Flowering in Casuarina Reserve Futham
2000 Feb. Jeff Jeans has described new species similar to T. nuda but with glossy black on mid-lobe of column. Muelleria 14:91 (2000). T. atronitida
2001 June 30th Looking at Pictorial Guide to Wild Orchids

of Victoria by Jeanes & Backhouse T. nuda has a mid. lob that is circular but not indented e.g. not . So I think Slide 110 is now included in T. sp. aff pauciflora 1. with a very reddish apex to mid-lobe. Slide 1388 labelled T. aristata (old name) is now T ~~nuda~~ sp. aff holmesii because of deep cleft in mid lobe.

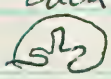
2001 Nov 3 Flowering in Newborough bush.

2003 Oct 25 " " Anzac Rd & Big Tower Rd. Mullungdung.

2003 Nov 1 " " Edward Hunter Reserve. Was surprised to find what appeared to be 2 forms of this orchid species. One form very robust about 3 ft high & the other only about 1 ft. Couldn't see any difference between mid. lobes & brushes.

2000 In Muelleria Vol. 14, 2000 two new species of Thelymitra from S.E. Aust are described & key including T nuda, T. pauciflora, T gregaria, T. megcalyptra T. malvina & the two new ones T planicola & T atronitida. T. atronitida mostly at Mallacoota but one site at Murboo North. T. planicola recorded between Sale & Bairnsdale.

Thelymitra Pauciflora (Slender)

1966 Oct 16th Flowering along Gormandale Rd at gravel pit.
1967 Oct 22nd " " Callignee Sth Rd.
Nov 4th " Wolfe's swamp.
1969 Oct 18th " at Rosedale
Nov 15th " " Cowwarr.
1970 Oct 11th " " Heyfield
1971 Nov 12 " " Flynn & Cowwarr.
1972 Jan 30 " " Mt Howitt area.
1975 Nov 2 " with many specimens on Anzac Rd. in Mullungdung Forest.
1978 Jan. Add extra species T. Holmsii [C. Beauglehole + R. Parsons]
1994 Nov 26th Flowering in APM block Stradbroke Sth. Gipp. H'way.
Oct 28th " " T'gon Sth Reserve
" " " Dawson R'way Reserve.
1995 " 28th " " Wonthaggi Heathlands
2001. Feb. Jeff Jeans has described new species that is like T. pauciflora in pressed specimens. Column post-anther lobe (think this means mid-lobe) semi-cylindric, widely open on posterior side. lower sterile bracts often large & leaf-like in T. planicola. In T. pauciflora & others column post-anther lobe tubular, narrowly open on posterior side, sterile bracts never large & leaf-like. Muelleria 14:91 (2000).
2001 June 30th In Pictorial Guide to Victorian Orchids by Jeanes & Backhouse it appears that the cleft in the mid-lobe of column does not need to be down the back of column but can be just in apex e.g.  so slide 110 in our collection should probably be T. sp. aff pauciflora 1. not T. aristata or as now T nuda. T. nuda just has a single notch in inside circle. T sp. aff pauciflora 1. has much wider opening in inner circle . with reddish apex & T aff pauciflora 2 seems to have yellow apex and almost entire inside.

Thelymitra pauciflora.

2001 July 11th Slide 1103 T. pauciflora is perhaps T. nuda because of the black lobe.
1106/7 remain T. pauciflora because of the red mid-lobe.

2002 Nov 23rd Flowering in Holey Plains State Park.
2003 See note under T. nuda

THELYMITRA Muelleria Vol. 19. 2004

Revision of *Thelymitra pauciflora* complex in Australia.

This complex is described as having small flowers (10-12mm long but perhaps up to 15mm), usually unscented, generally self-pollinating.

There are 23 species in this complex with 15 of them recorded for Victoria. Fifteen of the 23 species are new species described by J.A. Jeanes. The key needs 3 pages and all 23 species are described.

2005 Muelleria Vol 21 J. Jeanes describes a new species of the T. pauciflora complex as T. reflexa as tepals are strongly reflexed towards ovary; recorded for Crib Point & French Island but suspected much more widely spread. Column appears all brown

THELYMITRA REFLEXA - A NEW RARE ORCHID FROM VICTORIA

Thelymitra reflexa is probably most closely related to *T. pauciflora* and *T. peniculata* with which it shares a slender habit, long narrow leaf and terminal hair tufts on the lateral lobes of the column. It differs from *T. pauciflora* in often having more flowers (up to six) and from *T. peniculata* in being less robust and usually having fewer, slightly smaller more bluish flowers. It differs from both the above species in having flowers in which the perianth segments reflex strongly

against the ovary on hot days (of 30 degrees C. or more) and its entirely blackish green post-anther lobe on the column.

Thelymitra reflexa grows together with many other *Thelymitra* species and has been observed flowering at the same time with at least 12 other taxa. On hot days it is the only species in the area to display the characteristic reflexed tepals, and this feature is consistent throughout the population. The only other *Thelymitra* species observed by J. A. Jeanes to have comparably reflexed tepals is the unrelated and allopatric (growing in areas geographically isolated from one another) *T. luteocilium*, but this feature is rare for that species and is not consistent throughout a population at any given time.

Thelymitre pauciflora

THELYMITRA REFLEXA - A NEW RARE ORCHID FROM VICTORIA

Thelymitra reflexa is probably most closely related to *T. pauciflora* and *T. peniculata* with which it shares a slender habit, long narrow leaf and terminal hair tufts on the lateral lobes of the column. It differs from *T. pauciflora* in often having more flowers (up to six) and from *T. peniculata* in being less robust and usually having fewer, slightly smaller more bluish flowers. It differs from both the above species in having flowers in which the perianth segments reflex strongly

Notes from latest Muelleria Volume 21, 2005.

against the ovary on hot days (of 30 degrees C. or more) and its entirely blackish green post-anther lobe on the column.

Thelymitra reflexa grows together with many other *Thelymitra* species and has been observed flowering at the same time with at least 12 other taxa. On hot days it is the only species in the area to display the characteristic reflexed tepals, and this feature is consistent throughout the population. The only other *Thelymitra* species observed by J. A. Jeanes to have comparably reflexed tepals is the unrelated and allopatric (growing in areas geographically isolated from one another) *T. luteocilium*, but this feature is rare for that species and is not consistent throughout a population at any given time.

2006 Oct. 20th Ralph Laby reports that T. pauciflora and T. brevifolia both from pauciflora complex occured at Dawson River Longford. Ralph has to sort out just where they occur. Both species illustrated in colour in Muelleria Vol. 19, 2004 page 33. Post-anther (mid-lobe) in T. brevifolia has an orange-brown to bright reddish orange top. Both above species are recorded for L.V.

2006 Dec 9th Ralph reports T. pauciflora flowering at Longford. with yellow top to mid lobe. (Photo on Ralph's CD)

Thelymitra Rubra (Salmon)

1967 Oct 22nd Flowering at Chester Park.

Scape 28 cm. 2 flowers

Flowers: ± 2 cm across — lovely fleshy pink.

Ovary 8 mm long - grooved - reddish tinge.

Stems very reddish and very curved - 1 mm wide

Leaf: 16 cm long 2 mm wide — very reddish at base and completely stem clasping.

Bracts (st): 2 only.

(f) bract for each flower - all red.

Flowers: tend to turn so that almost at right angles to stem when open.

Column: Mid-lobe: smooth yellow.

hal-lobes yellow drooping and pimpled.

Centre of flower yellow big and bulging as in flexulosa - Dewy spot not visible.

Bud: rounded at top.

1970 Oct 11th Flowering at Heyfield Rifle Range.

1975 Nov 2nd " along Anzac Rd. in Mullungdung Forest.

'83 Dec. According to C. Beauglehole T. Carnea & T. rubra are combined as T. Carnea

1997 Oct 25th Flowering at Labertouche. According to Flora of Victoria Vol. 2 T. carnea has been re-instated & difference in key p. 541 is column arms longer than wide, thickish, slightly toothed on margins, anther point higher than mid-lobe, sepals not apiculate (short sharp flexable point). Whereas T. rubra has column arms quadrangular, not much longer than wide, flatish, with finger-like papillae anther point lower than mid-lobe & sepals apiculate.)

2003 Oct 25th Flowering on Big Tower Rd., Mullungdung.

2003 Nov 1. " " Edward Hunter Reserve. Have never seen such robust forms of this species. Several

Today - about a dozen at least - were app. 1ft high with more than 1 flower & one specimen had 4 flowers.

Thelymitra simulata.

2006 Jan 17 Flowering at Mt. St. Ciwinear. (Photo on Ralph's CD)
This species is similar to T. ixioides but its midlobe is smooth & tubular. It has dots.

Themeda triandra (australis) Kangaroo Grass.

1973 Mch 11. Plant growing in Willung Sth.
1993 Jan 31 Growing around camp area at Combienbar.
1994 Nov 26 " in APM block Stradbroke Sth. Gipp. Hway.
Nov 1 " " Casuarina Reserve Fulham.
Oct 30 " " Dawson Water Reserve.
Also grows in Dawson R'way Reserve.
1995 Oct 29 " " Wonthaggi Heathlands
Dec 12 " " Railway Reserve near Traralgon
1996 Sept 7 " " Tramway Rd. near Churchill in Significant Roadside Area (Ken Harris).
Dec " " Early Rd, Moe.
Dec " " Old Melb Rd near Latrobe Rd, Morwell.
Dec " " Railway Reservoir Conservation Reserve, T'gon.
1999 Jan 29th " " Gelantipy weekend.
2002 Nov 14 " " Railway Reservoir Conservation Reserve, T'gon

Thesium australe — Austral Toad-flax

1999 Jan 23rd-24th Recorded for Gelantipy weekend.

Thomasia petalocalyx (Paper-flower)

1969 Aug 16th Flowering at Wilson's Prom. Only a very few flowers out yet but many buds.
Bushes about 2ft high + very spreading.
leaves hairy, lanceolate with short point.
about 1½" ins long - edges slightly wavey.
Flower delicate mauve, cup shaped, app. ½"
across. Sepals pointed, petals not noticeable.
anthers brown.

Thryptomene calycina Grampians Thryptomene

1971 Aug 8 Flowering on Rose Gap Road and other places in the Grampians.
Shrubs up to 8ft high mostly white flowered. leaves crowded up stems. Flowers at base of leaves so that whole bush is just covered. Centre of flower covered by folded petals as they open. Buds pink and white. Dark red in centre as flower matures.

1972 Aug 29th Flowering in Grampians.

1973 Sept 5 " at Diamond Hill - Bendigo

Thryptomene micrantha Dotted Heath-myrtle.

1968 Sept 28th Flowering at Dalron Downs. Some bush pink, some white, very dainty flowers covering bush. Lovely perfume. C. il. slides.

1971 Aug 22nd Flowering at Loch Sport just past the township.

Oct 3rd Flowering at Dalron Downs.

(Arthrochilus huntianus) Thynninorchis huntianus

(Speculaea. Huntiana) (Elbow)

1966 Dec 17th. Flowering in Tigon 5th Reserve.

" 29th " at Barlamurla.

1967 Jan 7th " at Anderson's Track on Hill past pool.

Scape:- 4 ins flowers upside down at flowers.

Leaves:- None.

Dorsal Sepal:- 2mm with a knob on the end pointing towards the stem. Green.

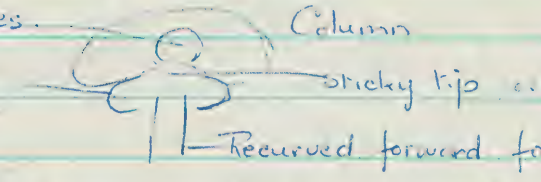
Lateral Petals:- 2mm nearly joining the dorsal sepal. Green

Sepals:- 2mm and both look bifid. Recurved tips shaped like ; Green tinged with red.

Labellum:- 5mm long including hairs. Brownish red with a joint in the middle. Hairs 1.5–2mm long. Red near hanging down part with light green hairs hanging for 1mm Appendage 2 only 1mm long projections with knob on the point of each. Dark red.

The hairs and projections give a very good appearance of an insect on a jointed stick.

Column:- 2 mm Green with 4 long 1mm appendages green also hanging down but curved. These I think are to guide appendage to sticky tip and top two hold it up by means of it's hairs.



Pollen masses attached to downward stalk in middle of appendage

Labellum appendage will not reach pollen masses when flowers open, but must grow later. Perhaps if not pollinated by insect then it grows to ensure self pollination. Pollen masses would attach after a little growth and after further growth would reach the sticky tip.

Bracts:- 2–3 stem clasping with floral bract for each flower.

Mr Peterson suggests these orchids grow across tracks or insect lines. We have found specimens ~~f~~ growing between trees at right to track through them. The wind moves the labellum appendage. ~~when~~

1967 Feb 12th Seed pods empty near Hyacinth Orchid on back track in Traralgon Sth Reserve.

[Could lengthening of labellum be caused by less rigidity as flower matures or by stretching due to movement in the wind]

Dec 31st Flowering on our bush paddock 6" high and 3 flowers.

Also in T'gon Sth Reserve one flower but growing wrong way.

1969 Jan 1st Flowering in profusion along Seninis Track quite large up to 6" high. Some plants had flowers at 90° instead of 180°.

1969 Dec 20th Flowering in our bush paddock.

1970 Jan 18th Flowering along Seninis Track not as many as last year but many flowers on one stalk. Most was 6 flowers + 1 bud all at different angles but most of the plants were in one plane.

Jan 25th Flowering at the Cobberas.

1972 Jan 30th " " Mt Howitt.

1978 Jan. Synonymous Arthrochilus huntianus D. Blaxell Contr. N.S.W. Nat. Herb. + 277 (1972) [C. Beauglehole + R. Parsons]

1984 Dec 29th Flowering along Boodyarn Road.

1989 Nov 27th Some plants flowering, most just in bud and a few with just stalk (very fine) with tiny knob on top. These were on left-hand side of Massey's Road in Mullungdung forest ½ way up hill before you get to bridge coming from Goodwood Road.

As we found the Elbow Orchid for the first time early this year these observations are, of necessity, only for one season and we have not yet been able to compare them with other plants. Please remember we are only amateur at these observations. Like you we agree that the insect-like portion of the labellum will not reach the column when the flower first opens. However we believe that if pollination with the aid of aninsect does not take place, then the plant makes its own arrangements for self-pollination. Whether the plant becomes less rigid with maturity (as would seem possible) , whether the continued weight and movement of the end of the labellum causes the segment after the joint to become extended or whether the plant actually grows we are unable to say as we have not taken the necessary measurements. We did observe that after a period of flowering the end of the labellum will reach to the column. We have noticed on the underside of the hairy segment there is a protuberance approximately at the centre. On one slide we have, we think a pollinia is attached to this protuberance. We certainly observed a pollinia in this position.

Column has four appendages, two diverging from centre at the top of the column and two hook-shaped curving towards the diverging appendages. We believe the diverging ones are guides for both the insect and the labellum. The wind blew the end of the labellum between these guides and the hooks caught in the hairs and so the labellum remained for some considerable time. When I say the end of the labellum I mean the insect-like section and it was caught about the middle. Each gust of wind blew the labellum closer to the column. By this means we feel the flower could pollinate itself. Continued movement caused the labellum to eventually work free. Had the insect visited the flower there would be no pollinia to cause self-pollination.

Observed flowers in bloom from December 17th to January 7th. in different areas. The plants in the Traralgon South Reserve set seed.

Does the plant grow in one plane to avoid entanglement of Labellum?

7/7/67

Thynnorchis huntianus
(Arthrochilus huntianus) (cont.) Elbow Orchid

2000 Dec 3rd Flowering in Swedwater Creek Reserve.
2003 June Name change in 9th ed. of Genera.
2006 Nov 4 In bud at Springsure area.

Thysanotus Patersonii

(Twining Fringe
~~Twining~~

25 Sept 1966 Flowering at Cauwar.
1967 Sept 28 Flowering in Garden
Oct 8th " " A.P.M. Reserve
1968 Oct 13th " at Cauwar
20th " " Clarke's Road.
1969 Aug 29th " " Granite Rock.
Sept 27th " Ciellindale
Oct 18th " Rosedale.
Nov 2nd " at Briagalong
1911 Oct 24th " APM Reserve
27th " Reid's Corner.
1994 Oct 30 " in Dawson R'way Reserve.
1995 Oct 28th " " Wonthaggi Heathlands
2006 Sept 30 " " Serenis Track.

Thysanotus Tuberosus. (Fringe Lily)

1966 Nov 13th Flowering along Germandale Road.
Also flowering in our bush at home.
Transplanted one into reserve & brought one home.

1967 Jan 14th Flowering along Anderson's Track.

Nov 11th Flowering in our bush. Dad brought one flower stalk home & although it was in the wash-house the 2nd flower opened by 7 o'clock in the morning & was closed again by 12 o'clock. Flower does not twist after flowering.

1969 Jan 1st Flowering Anderson's Track
Also - at Seneni's Track with some beautiful pale mauve, glossy flowers.

1970 Jan 17th Flowering along Semin's Track, mostly very deep color; many not fully open although it was hot & sunny.

1969 Nov 2nd Flowering at Briagolong
1970 Jan 26th " in Wulgulmerang area
1971 Jan 17th " on road to Mt Useful.
Nov 13th " " Reid's Corner.
1994 Nov 26 " " AMM track Stradbroke Sth. Cipp. Hway.
1999 Jan 23rd Recorded for Gelanity weekend.
2000 Dec 3rd Flowering in Sweetwater Ck. Reserve.
2001 Dec 1 " - Sandy Ck bush Newborough.
2002 Nov 23rd " " Holey Plains State Park.

Tmesipteris elongata. Slender Fork-fern.

This plant has been recorded at Morwell Nat. Park and Ellen saw it after it was recorded.

1995 1/Apr. 28th David Cameron reported to our meeting that this fern is in one of the gullies of the headwaters of the Agnes River in the Ciunyah Rainforest Reserve. David's report on the Ciunyah Reserve states this fern is extinct in Morwell Nat. Park. Report on Ciunyah Reserve filed under South Gippsland lists.

obliqua
sp.

Tmesipteris (billardieri ?) long Fork Fern.

1967 Septr 10th Morwell Nat. Park
1968 Feb 4 Yerang Park.
1970 Apr 18th Toronga Falls. on 1½ ml Track.

Tmesipteris ovata — Oval Fork Fern

1967 Sept 9. Morwell Nat. Park.
Mr + Mrs Brooks report finding this fern at Mt. Benae.

Tmesipteris parva. Small Fork Fern

1970 Mch 10th Mrs Lyndon found fern at Waratah Bay
1972 Mch 21 Walkerville
1981 Nov 28 Bullock Creek Gully near beginning of Bullock Link Track - Labertouche Forest.

Todea barbara — King Fern.

1966 Sept 21st Darlamurla.
1969 Mch 1st Behind Shingle Creek - Sori all exploded.
1970 Mch Waratah Bay. Ferns here had quite big bases about 2'6" to 3ft high & at least the same across. They tended to be bigger where fronds started than at the ground.

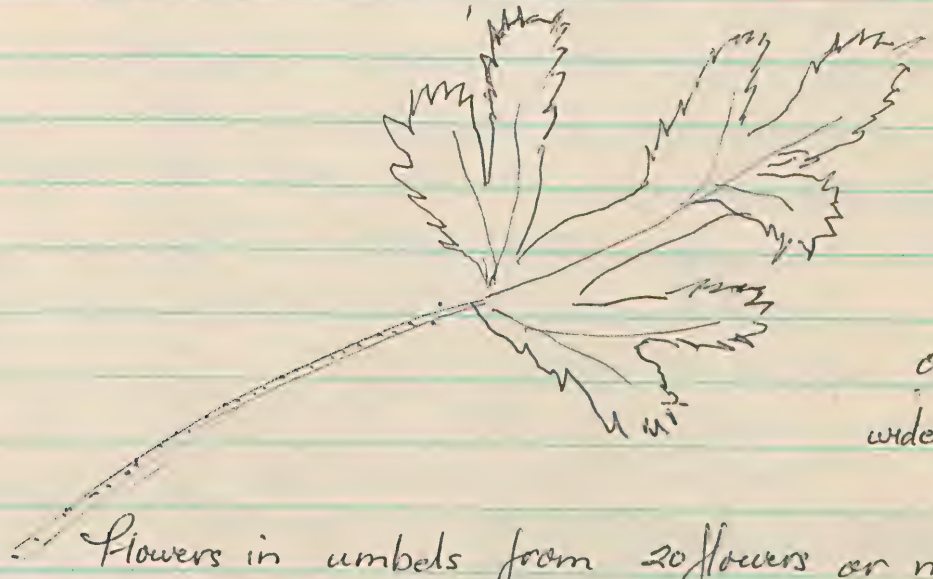
Base black & fibrous.

1970 Apr. Reported to be in Glen Nayook but we did not see specimen.
May 29th Darlamurla.
1972 July 22 Fairy Dell.

composita var composita.

TRACHYMENE (anisocarpa) Parsnip Trachymene

1994 May 28 Flowering at Cranbourne annexe of the Botanical Gardens. This plant rather low ± 1ft but we did see dried specimens of last years flowering spikes up to 4ft. These specimens had branched flowering stems. Apparently the bracts are retained after flowering. leaves large, palmatisect into 3 cuneate lobed segments + these segments further divided into 2 or 3 segments. Segments toothed with acute points. leaves ± hairy. petiole long, hairy and reddish in colour veins on leaves also reddish.



or perhaps white wider, as wide as long.

Flowers in umbels from 20 flowers or more, white.

2003 June Name change in 7th ed. of Census

Trachymene humilis (Alpine Parsnip)

to 1968 Jan 15th Flowering at Baw Baw. White or pink pincushion-like flowers with very tiny pins. Whole plant close to ground. Shiny basal leaves rather spoon-shaped. Flower stalks very short.

1970 Jan 24th Flowering at Wild Dog Creek & Rocky Plains at Wulgulmerang. This variety is very upstanding and conspicuous. Flower stalk is at least 1ft high. Leaves still spoon-shaped & basal but not flat on ground. Very pretty plant growing in profusion.

1971 Jan 30 Flowering on the plains at Howitt Springs. Flowers here were low as at Bennison.

1973 Jan 26th Flowering at Mt Baw Baw.

1991 Jan 29th " on Rocky Plains near Wulgulmerang. As mentioned above - plants here have flowers on tall stalks between 6" and 9".

1996 Jan 20th Flowering on Mt Loch track on Hotham weekend

1997 Jan 18th " " Livingstone Ck Track near Omeo. This specimen had flower stalk almost 1ft high.

1999 Jan 23rd Flowering on Cleland-Spy weekend - peduncle 9" long. Identified from specimen brought back.

2006 Jan 4th Flowering at Baw Baw

* Tragopogon porrifolius Salsify

1994 Nov 1. Plant growing in Casuarina Reserve Fulham.

1996 Dec " " " Railway Reservoir Conservation Reserve, Tgan.

Tricoryne Elatior (Yellow Autumn Lily)

1966 Oct 29th Flowering opp. Mrs O. Lades.
1967 Jan 1st Still flowering in T'gon Sth Reserve. These flowers have very woolly anthers.
1968 Jan 1st Still flowering opp. O. Lades.
Nov 10th Flowering along Clarke's Rd.
1969 Jan 5th " " Dead Horse Gully - fluffy stamens.
Feb 16th Flowering Rosedale - Lime Pit Rd.
1970 Nov 25th " at Briagalong.
1971 Nov 12th " " T. Flynn.
1979 Nov 28th " " "
1994 Oct 30 " " Dawson Railway Reserve
1995 Dec 12 " " Railway Reserve near Traralgon

~~AMPHIPOGON caricinus~~
Trifolium angustifolium

~~Long Greybeard Grass~~

Spikelets more or less identical
Inflorescence w/o spathes
Spikelets with 1 fertile floret - (only 1 seed)
Spikelets awned
Lemma bearing more than 1 awn

Group IV.

Spikelets with only 1 floret
Lemma with 3 awned lobes.
Lemma with 3 awned lobes, the palea with 2 awned lobes

Amphigon

Panicle oblong or narrow-cylindrical
Lemmas 9mm long including lobes which are ciliate to the apex of the bristles.
Leaves very dried in our specimens but only about 6-7cm when dried

13/3/93 Henderson's Rd. Toongabbie.
Not a grass

996 Jan 20th Flowering on Hotham weekend.

001. Dec 12th " in Railway Reservoir, Traralgon.

*

Trifolium arvense. Hare's-foot Clover

1999 Jan 23rd Recorded for Cielantipay weekend. Identified from specimen brought back.

2002 Nov 30th Flowering in Toongabbie Wetland.

* Trifolium dubium Suckling Clover

1993 Jan 31 Flowering in Errinundra N.P.
Difference between Lotus & Trifolium – see lotus uliginosus.

1994 Nov 26 Flowering in APM block Stradbroke Sth. Cupp. H'way.
Nov 1 " " Casuarina Reserve Fulham
Oct 30 " " Dawson Water Reserve
" " " " Rway "
1995 Dec 12 " " Railway Reserve near Traralgon.
2001 Dec 1 " " Sandy Ck bush, Newborough.
2002 Nov 11 " " Railway Reservoir Reserve Tigan
Nov 30 " " Toongabbie Wetlands

*

Trifolium subterraneum Subterraneum Clover

1994 Oct 30 Recorded in Dawson R'way Reserve, at home + many other places.

2002 March Flowering in Railway Reservoir Reserve, Tgan

Triglochin procera (a. ium) Water Ribbons

1991 Nov 11th In seed along Longford / Giffard Road where water has apparently lain all winter. Vallarsia (both species) was also growing in these depressions. Seeds were very interesting. They were yellow green or a bluish - burgandy on separate plants. Remembering the small flowers we saw on the Water Ribbons I am surprised at the size of the capsules. app 6mm long x 5 mm wide. They consist of 6 wedges joined together like segments of an orange, each segment contains at least 2 seeds perhaps more as even the darker capsules were not ripe. Each capsule falls off very easily. I suspect they would float. The capsule falls into segments very easily too. Each segment is grooved on the outside. Of specimens we collected the leaves were app 2mm wide

1994 Oct 30 Growing in Dawson Water Reserve.
" " " " River "
1995 Dec 12th " " Railway Reserve near Traralgon.

Bluellenia Vol 8 No 3. May 1995 P. 331. Revision of tuberous-rooted species of Triglochin (8 sp.) with many interesting notes + key to species in Australia.

1999 Oct 16th Crossing in Benkac Wetland Darnum
2000 Apr 11th " " Heyfield "
2002 Apr 27th " " " "
Nov 30th " " Toongabbie Wetland.
2002 Nov 23rd " " Holey Plains State Park.

Triglochin striatum Streaked Arrow-grass

1994 Nov 26" Plants in APM block Stradbroke. Sth. Gipp. Hway.
Also on Tanjil River.
1995 Dec 12" Plants growing on Railway Reserve near Traralgon
1996 Dec " " " Old Melb Rd near Latrobe Rd, Maxwell.
Dec " " " Railway Reservoir Conservation Reserve, Traralgon.
1999 Oct 16" " " " Bonlac WetHands, Parnum.
2000 Dec 5" Flowering or in seed at Sweetwaters Ck. Reserve.
2001 Dec 1 Growing in Sandy Ck bush, Newborough.

Notes from latest Muelleria Volume 22, 2005.

The two *Trymalium* species have been transferred to the *Spyridium* genus so *Trymalium daltonii* becomes *Spyridium daltonii* with a new common name of Grampians Spyridium as there is already a narrow-leaf Spyridium. *Trymalium ramosissimum* becomes *Spyridium xramosissimum* with the common name of Branched Spyridium. The key to Spyridium in Victoria is included.

A new Bulbine Lily has been described. It is *Bulbine crassa* and is different from *Bulbine semibarbata* in that it is a perennial instead of an annual and has succulent leaves not flaccid and is a much larger plant. This species is recorded for Wilsons Prom and the off shore islands and Tasmania. There is a key to the Bulbines of Tasmania and Victoria. *Bulbine glauca,* which is described in the Flora of Victoria is included in the key.

Three new Poa species are described all from the alpine areas although one of them is recorded as roughly from Heyfield to Dargo and The Bluff. No key included.

Grevillea victoriae species complex is discussed in this Muelleria. It describes 7 species and 5 sub-species of 2 other species that were all originally included as *Grevillea victoriae*. Another 4 species and 2 more sub-species are not described, as they have been published elsewhere; but are included in the key. As the article takes 57 pages I will not attempt to summarise it. Some of these species are included in the Flora of Victoria under *Grevillea victoriae* under a Race followed by a letter.

scariosa ssp. scariosa

Triodia (irritans) Porcupine Grass

1972 Sept. Plant growing in the Little Desert. This plant is aptly named as the 'leaves' are rigid & pungent pointed so that they definitely irritate. 'leaves' terete tapering up to 6" long pale greyish green. Branches round straw colour with 'leaves' coming off in form of sheaf. Plant we saw was about 3 ft. wide & about 2 ft high. Photographed.

Triptilodiscus pygmaeus

(Helipterum australe-)

1969 Nov 2nd Flowering at Briagalong. Tiny flower growing in swampy area. Leaves erect about 1 – 1½" long and flower sitting lower between leaves. Just one flower head to each plant. Flower quite yellow, like a little button.

Updating Genus Tristania

Description of floral structure of Myrtaceae is on page 142 of Name That Flower.
Stamens of Callistemon P. 145; Melaleuca P. 158 & Plate 6f P. 149
All species in Australia grow in N.S.W.and Q'ld but only 1 of these species grows in Victoria.
There are 45 species in the world.
Myrtaceae is divided into two main groups. One with succulent fruits like Lily-Pily and one with fry fruits e.g. eucalypts.

KEY

1. Stamens grouped into 5 bundles opp petals
   2. Fruits included in the hypanthium or barely exseted, seed linear.
      3. Flowers sessile, aggregated into head or spike-like inflorescens. MELALEUCA
      3. Flowers pedicellate, inflorescens with each branch ending in a flower.
         4. Leaves opp. & decussate, oil glands absent from petioles. TRISTANIA
         4. Leaves alt. along branchlets but clustered in flase whorls at end of branchlets; oil ducts, containing milky oil, present in the petioles LOPHOSTEMON
   2. Fruit exserted from hypanthium, seeds flat, winged. TRISTANIOPSIS

The Victorian species was *Tristania laurina* since 1812 and is now *Tristaniopsis laurina* since 1982 and was *Melaleuca laurina* in 1797. Kanooka.
The tree often grown as street tree was *Tristania conferta* and is now *Lephostemon confertus*. (Should imagine also since 1982.)
Fruit:- Tristania - capsule thin walled, 4-5 mm diam. seed 1-2 mm long.
Tristaniopsis - fruit strongly exserted from hypanthium, 3-valved, only splitting as far as the hypanthium, 6-10 mm long, 3-6 mm diam., seeds winged 5-6mm long.
Lophostemon - ovary half inferior, fruit hemispherical 5-12mm diam., seeds 1.5 - 3mm long.
Tristania is endemic to Australia.
Tristaniopsis - Austalia, New Caladonia, Malesia to Burma & Thailand.
Lophostemon - New Guinea and Australian.

Tristaniopsis laurina

(Tristania laurina) (Kanooka)

1967 June 20th. Shrub at creek edge along King Hway. leaves lanceolate 10 cm long 2 cm wide, dark green above, yellow green below. Fruit 7 mm long about 5 mm wide. Looks as if fruit is contained in a calyx as it has bracts around the middle. Fruit on long stalks 1 cm then dividing into 2 about 7 mm long then fruits. Fruits from leaf axils Leaf stems 1 cm.

1972 July 9th Trees growing at Billy Goat Bend.

1993 Jan 31 " " in Errinundra N P.

Trochocarpa. clarkei

Jan 2nd 1976

Plant growing ~~with~~ down over the edge at Mt. Useful. Plant looked very like Honey Pots but there were no serrations on the leaves. Also the fruit was halfway up the branches, looked as if it was at the commencement of the new growth but cannot be sure. Some plants had immature fruits and others had immature buds. Is this another alpine plant that forms the buds before winter to give the plant a good start next spring. The wattle at Mt Useful does this.
Plant was about 1ft high.
Had we seen the flowers we would have known it was not an Acrotriche as the flowers are not green. Ripe fruit is bluish-purple.

Tylophora barbata. Bearded Tylophora

1994 July 15th This plant has burst it's seedpods this year until the plant looks like a clematis except that the seeds are different. I have not noticed this other years although the plants have been growing in the garden for over 30 years. Why are the seeds so prolific this year?

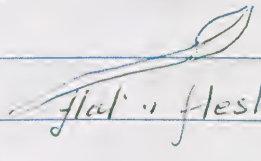
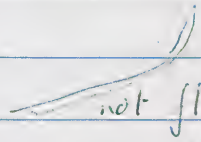
Typha. domingensis Narrow leaf Bullrush

1998 April. 6" Plants growing along edge of lake Warracan near Water Skiing area.
I think the specimen is T. domingensis because of the narrow inflorescense; the narrow leaves; the space between male + female flowers is 2.7cm; but I am concerned about the curiculate part of the leaves. leaves in this specimen // // don't know if this is curiculate.

2002 Apr. 27 Plants growing in Heyfield Wetland.
Flowering spikes only ½ height of leaves.
Mature female fruits cinnamon brown. leaves decidedly green not bluish-green.

2003 Mar Recorded in Eel Hole Ck/Cemetery Conservation Reserve Management Plan.

Typha species

Feature	Typha latifolia Lesser Reed-mace Introduced	Typha domingensis Narrow-leaf Cumbungi Native	Typha orientalis Broad-leaf Cumbungi Native
male flowers separation female flowers			
Female Part	Dark red-brown to Black-brown	Cinnamon Brown	Chestnut Brown
bracts on female flowers.	absent	abundant + broadly spoon-shaped	absent or few and narrowly spoon-shaped
Stigma.	 flat + fleshy	 not fleshy linear often folding lengthwise.	 not fleshy. ovate to narrow often folding lengthwise
Separation between male + female parts	not separated or only by 0.5cm	2 — 5.5 cm	up to 5.5 cm
Leaves	Grey-green. Up to 100 cm long 1–2 cm ~~long~~ wide Flat in cross-section	Green or yellowish Green Up to 200 cm long 0.5–1.5 wide. Biconvex in cross section	Bluish or Grey Green. Up to 200 cm long 0.5–1.5 cm wide Biconvex in cross section
Pollen	Shed in tetrads (groups of 4 remaining fused together)	Shed in single grains	Shed in single grains.

Typha

Details	T. domingensis Narrow-leaf Cumbungi	T. orientalis Broad-leaf Cumbungi	* T. latifolia Great Reed-mace
Female part of inflorescence -	Cinnamon to Brown	Chestnut to brown	dark red-brown to black-brown
Bracts of female part of inflorescence -	abundant broadly spathulate	absent or few. narrowly spathulate	absent
Stigmas	linear often folded longitudinally not fleshy	narrowly ovate to narrowly obovate. not fleshy.	narrowly-obovate to obovate flat & fleshy
Leaves - shape	biconvex	biconvex	flat in cross-section
width	0.5 – 1.5 cm	0.5 – 1.5 cm	1 – 2 cm
colour	yellowish-green	bluish or grey-green	grey-green
length -	up to 200 cm	up to 200 cm	up to 100 cm
Sheath auriculate	only 1 or 2 top leaves	top 2-4 leaves auriculate	distinctly auriculate
Inflorescences - Separation	2 – 5.5 cm sometimes 0.5 cm	up to 3.5 cm	not separated or up to 0.5 cm.
Pollen shed	as single grains	as single grains	tetrads.
Height - plant	to 4 m.	to 4 m.	to 3 m.
Mature female spikes	12-40 cm long. < 20 mm diam.	8 - 30 cm 10 - 40 mm diam.	10 – 20 cm long. 15 – 25 mm diam.
Mature Male spikes	15 – 35 cm long 5-10 mm diam.	10 – 30 cm long. 5-15 mm diam.	6 – 16 cm long 10-5 mm diam.
Flowers	Dec to May	July – Dec (- ~~Jan~~ Mar)	Dec to Feb.

orientalis

Typha (Angustifolia) Reed Mace Bullrush.

1967 Feb 12th Flowering on Calligree South Rd near Oosterkamps. Annette says female portion of seed explodes when mature. Scattered seeds all over room. Little part on top is male flower and larger tubular section below is female flower. Male portion withers after female section has been pollinated.

Mr J. B Dwyer says that the flower is very nutritious before it turns brown, ie while still green. No strong flavor but full of nutriment. Used in New Guinea during the war.

2002 Apr 26 Growing in Heyfield Wetland. Leaves bluish-green. Flowering calm as long as leaves or longer.

Nov 30th Growing in Toongabbie Wetland.

2003 Mar Recorded in Eel Hole Ck/Cemetery Conservation Reserve Management Plan.

* Ulmus procera English Elm.

1994 Oct 28th Growing in Tgon Sth Reserve

Urtica incisa — Scrub Nettle

1993 Jan 30 Growing on side of road between Club Terrace & Combienbar.

1995 Jan 15th Recorded for Largo weekend.

2003 Mar Recorded in Kel Hole Ck/Cemetery Conservation Reserve Management Train.

Utricularia or Bladderworts Suction traps.

The entrance mechanism of the trap consists of the hanging door bulging outwards, like a billowing curtain, to approximately a quarter sphere in shape. The free edge rests on the threshold fitting snugly against it along a soft cushioned pavement. It fits against a shallow groove which prevents the door from opening inwards when not affected by pressure. Apart from this a thin membrane or velum protects the door edges and seals the chink. The door and the velum are two valves.

The trap can excrete water from inside the bladder through the tissue of the walls, thus pumping water from the outside inside to the outside and creating a pressure from the outside. This outside pressure is exerted over the whole of the bladder including the closed door, which is thus very delicately poised. Projecting from the middle of the door are some stiff bristles or knobs. At the same place there are also stalked glands which throw off sugar and mucilage said to attract small creatures and act as a lure. The faintest touch on the bristle or knobs will open a chink. The door instantly buckles inwards, water rushes in, carrying with it the luckless creature that touched the bristle.

The water pressure slackens immediately and the door by its own flexibility promptly regains its former shape and becomes closed. Once more water is gradually expelled through the walls of the trap and the door becomes tightly pressed against the threshold, poised for another victim. The time for resetting takes from 15-30 minutes or up to 2 hours for some species.

There are two types of doors in these traps. The first is found in the floating bladderworts. These have short tubular entrances to bladders with almost upright doors(i.e. at a wide angle of about 90 degrees).

The second type of door is found in the mud-growing plants These have long tubular entrances to the bladders with doors sloping inwards (at a narrow angle). Many Australian species improve on the sloping door by bending the lower half of the door in an even more acute angle, almost parallel to the threshold and by adding to it an extra sealing velum at the entrance like a circular frill around the opening.

(Copied from Plants of Prey by Rica Erickson)

uniformlerie or bladderwort.

The entrance mechanism of the trap consists of the bumping door mainly outwards, like a hinged curtain, to admit a quantity sphere in shape. The free edge rests on the threshold fitting snugly against it along a soft cushioned pavement. It the upper antechamber a shallow groove which recovers the door from opening inwards when not affected by pressure. Apart from this within chamber or velum projects the door edges and seals the

The door and the velum are two valves.

The trap can excrete water from inside the bladder through the wall, thus pumping water from the outside. the tissue of the outside and creating a pressure from the outside. Inside to the outside is exerted over the whole of the bladder This outside pressure is thus very delicately poised. Touching the closed door, which is also stalked glands which Touching from the middle of the door are some stiff bristles o bodies. At the same place there are also small crescences throw off scraps and animals said to attract such prey as a lure. The faintest touch on the bristle or bristles will open a valve. The door instantly buckles inwards, water rushes in, carrying with it the luckless creature that touched the bristle.

The water pressure slackens immediately, and the door by its own elasticity promptly regains its former shape and becomes closed. Once more water is forcibly expelled through the walls of the trap, and the door becomes tightly pressed against the thereafter, poised for another victim. The time for resetting from 15–30 minutes or up to 2 hours for some species.

There are two types of doors in these traps. The first is found in the fine-cutting plant-eaters. These have short tubular entrances to bladders with [illegible] of a wide angle of about 90 degrees. The door is found in the mud-growing plant [illegible] long tubular entrance to the bladders with doors [illegible] a quarter sphere in shape. The free edge rests on the threshold fitting snugly against it along a soft cushioned pavement. It the upper antechamber a shallow groove which recovers the door from opening inwards when not affected by pressure. Apart from this within chamber or velum projects the door edges and seals the

The door and the velum are two valves.

The trap can excrete water from inside the bladder through the tissue of the wall, thus pumping water from the outside. inside to the outside and creating a pressure from the outside. This outside pressure is exerted over the whole of the bladder Touching the closed door, which is thus very delicately poised. Touching from the middle of the door are some stiff bristles o bodies. At the same place there are also stalked glands which throw off scraps and animals said to attract such prey as a lure. The faintest touch on the bristle or bristles will open a valve. The door instantly buckles inwards, water rushes in, carrying with it the luckless creature that touched the bristle.

The water pressure slackens immediately, and the door by its own elasticity promptly regains its former shape and becomes closed. Once more water is forcibly expelled through the walls of the trap, and the door becomes tightly pressed against the thereafter, poised for another victim. The time for resetting from 15–30 minutes or up to 2 hours for some species. The first

There are two types of doors in these traps. These have short tubular is found in the fine-cutting plant-eaters. entrances to bladders with [illegible] of a wide angle of about 90 degrees. The door is found in the mud-growing plant [illegible] long tubular entrance to the bladders with doors

(Drawn from [illegible] by Miss Dickson)

[illegible] a quarter sphere in shape. The free edge rests on the threshold fitting snugly against it along a soft cushioned pavement. It the upper antechamber a shallow groove which recovers the door from opening inwards when not affected by pressure. Apart from this within chamber or velum projects the door edges and seals the

The door and the velum are two valves.

The trap can excrete water from inside the bladder through the tissue of the wall, thus pumping water from the outside. inside to the outside and creating a pressure from the outside. This outside pressure is exerted over the whole of the bladder Touching the closed door, which is thus very delicately poised. Touching from the middle of the door are some stiff bristles o bodies. At the same place there are also stalked glands which throw off scraps and animals said to attract such prey as a lure. The faintest touch on the bristle or bristles will open a valve. The door instantly buckles inwards, water rushes in, carrying with it the luckless creature that touched the bristle.

The water pressure slackens immediately, and the door by its own elasticity promptly regains its former shape and becomes closed. Once more water is forcibly expelled through the walls of the trap, and the door becomes tightly pressed against the thereafter, poised for another victim. The time for resetting from 15–30 minutes or up to 2 hours for some species. The first

There are two types of doors in these traps. These have short tubular is found in the fine-cutting plant-eaters. entrances to bladders with [illegible] of a wide angle of about 90 degrees. The door is found in the mud-growing plant [illegible] long tubular entrance to the bladders with doors

(Drawn from [illegible] by Miss Dickson)

Utricularia australis Yellow Bladderwort.

1981 Dec 29th Plants growing in pond on Stocks Road near Yinnar. No leaves only submerged plant with lots of bladders.

Cliff Carr in Rayfield EES calls the U. aurea and so does Cliff Beauglehole in his plant lists but Helen Aston in her book does not agree. No notice by Mary Todd in Vic. Nat. does not mention it either.

1993 Aug 9th U. australis is in Census-4th ed. with no mention of U. aurea

Utricularia Dichotoma. Fairies Aprons

1969 Jan 14th Flowering in profusion in swamp opp. Waterlily pond Yallourn Nth Also near pond at Andersen's tract but not flowering at this time.

1969 Jan 1st Flowering along Seamins Track.

5th " in profusion just past fence line at bush paddock in soak on side of hill.

26th Still flowering past bush paddock. Some specimens large almost 1" across and standing 18" high. Examined leaf under microscope. Bladders are on under surface of leaf & look like little warts sometimes almost on top of each other, others not so congested. Biggest leaves less than ¼" long but many around each flower stalk. Leaf blue green.

Two petalled flower lower on fan shaped at centre is raised portion in white, two long raised ridges white in flower 1.2 cm across ridges are 2 mm long to mouth of the continuing down tube

Upper petal very small in above flower 3 mm wide flat and coming down to top of stigma. Fine crystal-like spikes around opening giving very beautiful effect. Flower has tube at back 6mm long. A little like a snapdragon.

Stamens appear to be attached to upper petal (?) white purple.

Inside mouth is row of "teeth".

Spur shorter than lower petal. According to J. Black the bladders are on foliage leaves under water so do not know what brown warts on back of leaf are. They hold water.

1969 Feb. 20th Dad checked plants in bush, all except a couple of plants had finished. These two were small & short.

1970 Jan 18th Flowering at Serenis Track

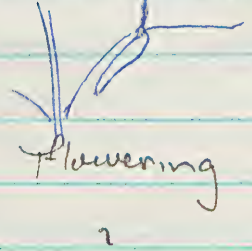
24th " " Wulgulmerang.

1972 May. " " Willung South.

1978 Jan Could be two species one with several large flowers with several yellow stripes at base of "apron" & second species with 1-3 smaller flowers & 3 stripes)

[C. Beauglehole & R. Parsons]

1981. Dec 29th Specimens have 3 stripes but have further pair of flowers about 1½" down scape. Flowering in paddock near swamp at Yallourn near Pump House. Spur not conspicuous as it follows line of stem, and shorter than big petal.



1989 Jan 14 Flowering at Wulgulmerang

1996 Nov 7th " " Giffard Rifle Range. Identified by Neville Scarlett.

1997 Oct 25th " " Labertouche but with 1-2 yellow stripes on flower. Only one flower open but could have been bud above.

1991 Jan 21st " " Cielantipy weekend.

1991 " 23rd " " " "

Royal
Botanic
Gardens
Melbourne

Private Bag 2000
Birdwood Avenue
South Yarra
Victoria 3141
DX212587
Telephone
(03) 9252 2300
Facsimile
(03) 9252 2442
Email
rbg@rbg.vic.gov.au

3 June 2008

Bon Thompson
P.O. Box 644
Traralgon 3844

Dear Bon,

The Utricularia specimens received from you in early April are Utricularia gibba L.
U. gibba has dual status in Victoria. Collections from man-made lakes in the Melbourne area (Frankston, Langwarrin, Bundoora) are regarded as introduced, probably via the aquarium trade. This is probably the situation with your specimens.

Currently, only one collection from the Betka River in East Gippsland is regarded as indigenous in Victoria.

Sincerely,
John Reid,
Identifications Botanist

The Royal Botanic Gardens Board (Victoria)
Patron
Dame Elisabeth Murdoch

Incorporating:
Royal Botanic Gardens Melbourne
National Herbarium of Victoria
Royal Botanic Gardens Cranbourne
Australian Research Centre for Urban Ecology

Printed on recycled paper

The Director of the Royal Botanic Gardens, the Royal Botanic Gardens Board, its officers and author(s) do not accept any liability whatsoever, whether in contract, tort or otherwise, for any loss incurred or damage caused or any actions, claims or suits arising from the use of or reliance on the recommendations, instructions or advice contained in this document by any person.

Utricularia gibba. Floating Bladderwort.

April 6th 2008 Ron Carey brought me specimens from Valley View Park Normandy Street, Warragul. They are very fine plants with flowers about 1cm across when pressed. There are 2 calyx leaves at base of flower. There are about up to 3 flowers on each plant with quite long pedicles ± 1.5-3cm. Fruits - calyx still attached, circular ±2mm diam. with style a pimple on top. Flower 2 petals more or less the same size with a spur at the back that is longer than the bottom petal is wide & thus shows in our specimens - The raised boss on the bottom petal difficult to see in the pressed specimen. Plants were growing in water in the mud. After soaking in water it was possible to wash off some of the dirt & expose the bladders. Good illustrations in Helen Aston's book 'Aquatic Plants of Australia' & in Flora of Victoria.

Utricularia laterifolia. (Small Fairies Aprons)

1969 Jan 14th Flowering in swamp opp. Waterlily pond Yallourn Mth. Not nearly as many plants as the larger variety.

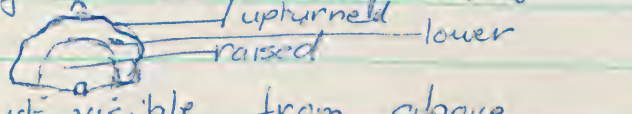
1969 Jan 1st Flowering along Senini's Track along swamp at bottom of hill & along soak

1970 Jan 18th Flowering at Senini's Track.

1972 May " " Willung South.

1981 Dec 29th " at swamp at Yallourn near pump house. Jean tried to identify flowers but could not because flowers went at end of stalk not some distance down as is usual with the species. Bracts do not seem to be regularly alternate but they do ~~just~~ seem just simple though round out at base

Spur on flower very conspicuous sideways.



spur just visible from above.

Plants with flowers 1½" to 6". One plant had two almost stalkless flowers at top of scape other plants had only one; but all flowers definitely at end of scape. Flowers pale purple & white. No leaves.

Utricularia monanthus Tasmanian Bladder-wort

1992 Jan 26th Flowering on Bogong High Plains Rd at turnoff track to Cope Hut in very swampy area.

1997 Jan 18th Flowering in swampy areas both along Livingstone Ck Track near Cattleyards + on Bentley's Plain.

12363635

Rivers as Ecological Systems: The Murray-Darling Basin

Bon/ re your latest letter, by a strange coincidence I came across this yesterday.

Cheers

Bob

(see over)

[illegible]

Edited by W.J.Young
CSIRO Land and Water

patches of young or seedling river red gums (*Eucalyptus camaldulensis*) (not shown) and a medium height rush (*Juncus aridicola*) at the upper end of this grassland zone. Above the grassland was established forest of river red gum (Zone 4) with an understorey of fen sedge (*Carex gaudichaudiana*) (not shown) or Warrego summer grass (*Paspalidium jubiflorum*).

Significant species

Ribbon weed

Ribbon weed (*Vallisneria* spp.), also known as eel-weed, is one of the most widespread submerged aquatic plants in the world. In the Murray-Darling Basin, it is found in standing water or slow-flowing aquatic habitats such as rivers and creeks, lakes and billabongs, as well as in drains and dams. Ribbon weed grows on sand, silt or clay substrates.

Swamp isotome
Berembed Lago
Narrandera
photo: Andrew

Flowering r
in Lake Me
near Boolig
photo: Jane

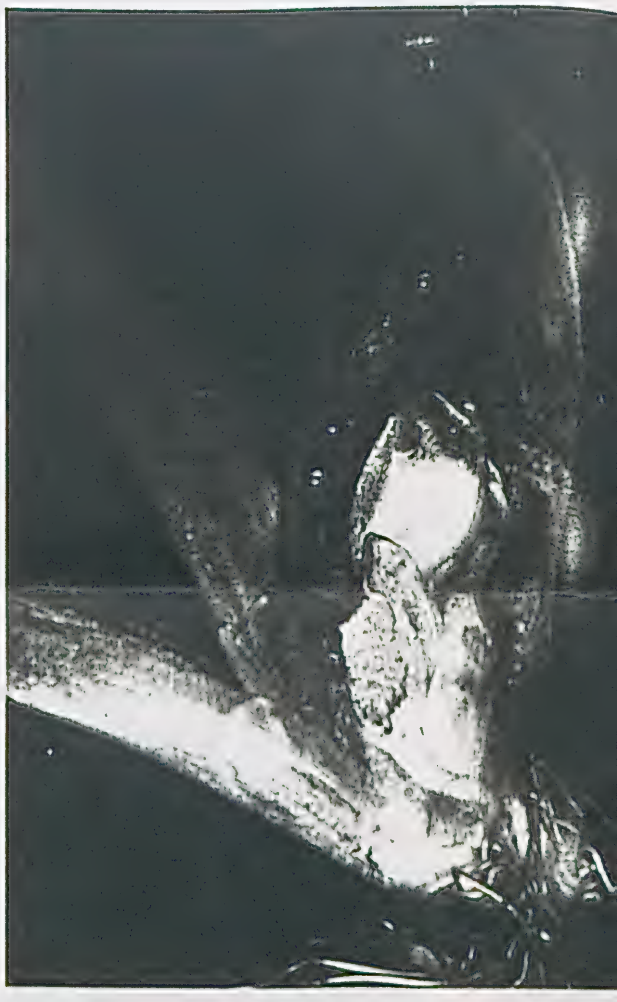
eed ... is one of the
spread submerged
ants in the world.

low
on w, Lake
Grif Canberra
Roberts

The main species in the Murray-Darling Basin, now known as *Vallisneria americana*, was formerly known as *Vallesneria gigantea* because of its long, wide leaves, and before that as *Vallesneria spiralis*.

Evidence of its historical distribution is scant, but it appears that ribbon weed was common and abundant in lowland rivers and wetlands throughout the basin in the first half of the 20th century. Since the 1970s, however, it has undergone a severe reduction and has now disappeared from many wetlands and river reaches (for example, Roberts and Sainty 1996). Reasons for this decline have not been identified. It is likely that more than one factor is involved, and the factors and their relative importance may differ from place to place. Factors which could cause a dramatic decline or prevent re-establishment include foraging by common carp (Roberts *et al.* 1995) and inadequate light (Blanch *et al.* 1998). Inadequate light could result from deeper water or increased turbidity.

Ribbon weed grows completely under water, in fresh or slightly brackish conditions. It is found in shallow (0.5 to 1 metres) and clear, deep water (down to 4 metres, and sometimes to 7 metres). In nutrient-rich and high-light conditions, the leaf is colonised by algae and bacteria, which can retard plant growth by reducing the amount of light reaching the leaf. Siltation can also weigh the leaves down. Leaves are long (1 to 3 metres), strap-like and are tightly clumped together. They grow from a rosette base, so the tip is the oldest part of the leaf. Individual leaves are very thin, as is the cuticle covering the leaves. This gives virtually no protection against



dehydration, and so leaves die rapidly if taken from the water.

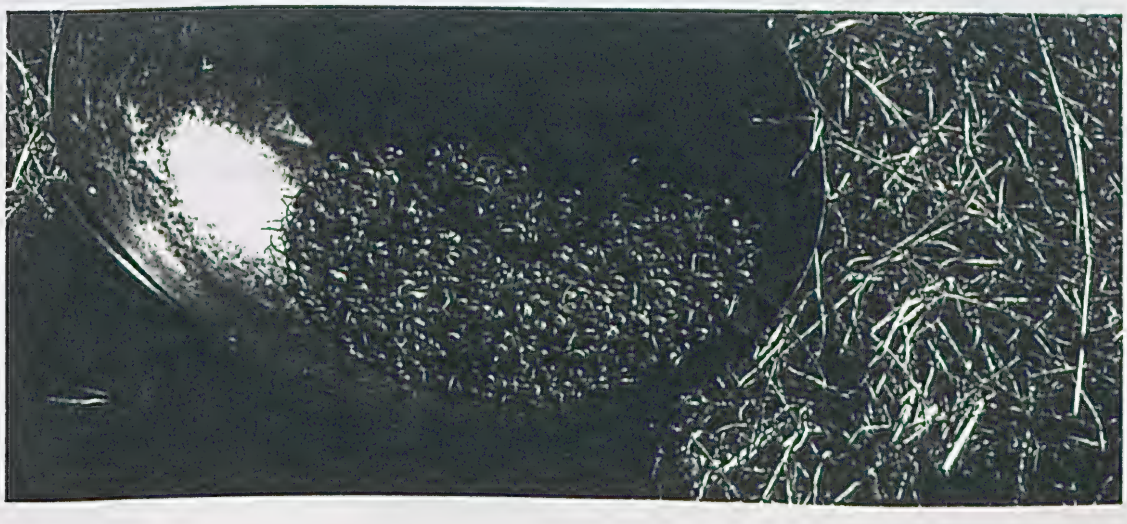
Like many other aquatic plants, ribbon weed can reproduce either from seed or from daughter plants. Flowers form under water in summer but pollination occurs in air on the water surface. If plants are dense and the water is still, the surface may become white with pollen. Once fertilised, the female flower retracts under water by recoiling its stem, and the fruit with its seeds matures there. The development of daughter rosettes happens in late summer. The parent plant extends a stolon (a slender horizontal stem 5 to 20 cm long). The tip takes root, then develops leaves, forming a daughter rosette. In North America, *Vallisneria americana* also produces

specialised winter-buds which lie buried in sediment until spring, when they produce a new shoot. These winter buds which are rich in carbohydrate have not been noted in Australian plants.

The most critical resource appears to be light. If light is inadequate, plants do not produce new leaves, do not produce over-wintering buds, seedlings do not establish, and they do not reach the critical size needed to flower (Titus and Hoover 1991). Each of these stages has a specific value for what is 'adequate' at the bottom, where the youngest and growing tissues are, and may be affected by changes in water quality or depth. Under very low light conditions, ribbon weed gradually loses its canopy, but can retain its root and stolon system, at least for a while. It can then regrow from this buried stem base when light conditions improve. This enables ribbon weed to survive prolonged turbid conditions, such as natural floods (Roberts and Sainty 1996). The consequences of reduced light during the growing season, spring–autumn, are that reproduction, both sexual and vegetative, is reduced or even ceases. For ribbon weed, therefore, the critical water regime factors are depth and duration of flooding, and the time of year when this occurs.

Ecological studies of ribbon weed in Australia include growth and photosynthesis in relation to light and depth (Blanch *et al.* 1998), biomass and growth in a riverine wetland and in a constructed eutrophic lake (Briggs and Maher 1985, Moore 1992); decomposition rates under field conditions (Briggs *et al.* 1985); and changes in areal extent in constructed lakes (Moore 1992, Royle and King 1991). The dynamics, ecology, reproduction and physiology of ribbon weed are better known in North America where its importance in wetlands is recognised.

In general, the reproduction ecology of ribbon weed is very poorly known. Seeds are 1 to 2 mm long and quite distinctive looking. Critical values for factors controlling germination, such as temperature (hence season) and light quality, are virtually unknown, both in Australia and overseas. Seed bank dynamics and seed longevity—critical knowledge for rehabilitation projects—and the survival of adult rootstock during dry spells, are also unknown.



Nardoo sporoca
once ground for
photo: Jane Rob

EEL-WEED *VILLISNERIA AMERICANA*

Some members will remember our excursion to Heyfield Wetland and then on to Cowwarr Weir on April 27th, 2002. Near the bridge at Cowwarr we found the Eel-weed or Eel-grass. When we found it we thought it was *Vallisneria spiralis* which seemed an apt name as the stem of the flower was spiralled.

As it was a new record for Grid S in the distribution of vascular plants of Victoria, I pressed our meagre specimen and checked the name to send it to LaTrobe University. Willis had it under *V. spiralis* but stated J.M. Black in Flora of South Australia had taken the name of *V. gigantea* as the Australian plant differed from the European plant *V. spiralis.* The Flora of Victoria had 2 species differentiated by having or not the following features :- hairs at the base of the stamens on male flowers and fringed stigmas and conspicuous small staminoides united at their bases in the female flowers. Do members remember how very small the flowers were? I almost gave up. Then I looked in the Census – the latest publication I have – and found that both species had been combined into *Vallisneria americana var. americana.* So I sent the specimen off to Dr. Parsons who verified the identification and will send it to the Herbarium as a new distribution record.

Dr. Parsons has sent me an extract from the publication "Rivers as Ecological Systems – The Murray-Darling Basin" edited by W.J. Young of CSIRO Land & Water. It gives the common name for *Vallisneria americana* as Ribbon Weed. The following are extracts from that paper. Ribbon Weed is one of the most widespread submerged aquatic plants in the world. In the first half of the 20th century it was common and abundant in the Murray-Darling Basin. Since the 1970s it has undergone a severe reduction and has now disappeared from many wetlands and river reaches. Reasons for the decline have not been identified. It is likely that more than one factor is involved. Factors which could cause dramatic decline or prevent re-establishment include foraging by common carp and inadequate light (result of deeper water or increased turbidity).

Ribbon weed grows completely under water in fresh or slightly brackish conditions. It is found in shallow (0.05 to 1m) and clear deep water (down to 4m and sometimes to 7m). Unusual feature of the plant is that it grows from a rosette base so the tip is the oldest part of the leaf. Flowers form underwater in summer but pollination occurs in air on the water surface. The male flowers float freely on the surface of the water but the female flowers remain attached to the plant and once fertilised retract under water by recoiling the stem. The fruit with its seeds matures there. The plant can grow from seed or daughter plants. Critical water regime factors are depth and duration of flooding and the time of year when it occurs. The reproduction ecology of the ribbon weed is very poorly known. Seeds are 1 to 2mm long. Recorded distribution in Flora of Victoria is only 3 areas east of Western Port Bay except some on the Murray River.

americana var americana.

Vallisneria (spiralis) Eel Grass.

2002 Apr 26. Flowering in Thompson River at Bridge near Fish ladder on upstream side.

I assume it is this species as the flowers were only very small 3mm would fit I think.

This is a very interesting plant & a very good description of its behaviour is written up in Helen Aston's book Aquatic Plants of Australia. P. 237 + illustration.

August 2003 Sent above specimen to Bob Parsons. Neville Scarlet says it is Vallisneria spiralis var denseserrulata but when I looked up Census it says V. spiralis sensu J. H. Willis = V. americana var americana

Velleia montana. Mountain Velleia

1970 Jan 2nd Flowering at Tamboritha Saddle.
Small rosette plant - low to ground, leaves rosette of thick silky leaves, entire.
Small short-stalked yellow flowers with corolla + spreading at end - 5 petals or lobes.

1971 Jan 30 Flowering at plains at Howitt Springs.

1992 Jan 26th " " Buckety Plain.

1999 " 24th Recorded on Ciclontripy weekend.

Velleia paradoxa — Spur Velleia.

1997 Nov 1st Flowering along the railway line reserve between Traralgon and Morwell.

Plant very like a Goodenia but stamens + style are in the middle of the plant not under the petals as in Goodenia.

This plant is branched with basal leaves. The petals appear fluted around the edge. The two top petals have an appendage in the centre of the flower which is called a spur. It appears to me that the petals are two up + 3 down which is the opposite of Goodenia ovata.

Reported to Dr. Parsons as only record for T is a doubtful record from Tarra/Bulga Park.

1999 Jan 23rd Flowering on Gelantipy weekend. Identified from specimen brought back. Don't know if they saw both species.

Vellereophyton dealbatum

(Cinaphalium candidissimum) White Cudweed

1987 Sept 24" Flowering at 4-mile Creek. Small creeping whitish plant. Flowers with petals (tiny) & centre of flowers red or cream. Our plant was tallest I have seen - appr 3" high. Not like any other Cinaphalium.

1994 Nov 26" Plants in APM block Stradbroke Sth. Gipp. Hway.

Oct 30 " " Dawson R'way Reserve

1996 Nov ? " " Gifford Rifle Range.

2000 Dec 3rd Flowering in Sweetwater Ck. Reserve.

2002 Nov 9" " " Cinnigan Road Reserve

2006 Oct 31 " " Longford/Rosedale Road.

*

(Woolly Mullein)
Aaron's Rod

Verbascum thapsus

1994 Dec 30 Growing in Downies lane

1995 April Flowering but broken off before completing flowering. Second plant growing but only flat on ground so far.

GREAT MULLEIN

In the Modern Herbal this plant has 33 common names which is an indication of its use throughout the world. Some of the names describe it as with Our Lady's Flannel, Velvet Plant, Blanket Herb and Wild Ice Leaf and others describe its use as with Candlewick Plant, Aaron's Rod, Shepherd's Staff or Beggar's Stalk. None seem to describe its medicinal uses, perhaps because it had so many.

It is widely distributed being found all over Europe and in temperate Asia as far as the Himalayas and in North America is abundant as a naturalised weed of the eastern states, throughout Britain, except in the extreme north of Scotland , and also in Ireland and the Channel Islands on hedge-banks, by roadsides and on waste ground. It is present in most Australian State but common in N.S.W. It is declared a noxious weed in Victoria and N.S.W. because it grows so successfully in poor soil and because of the great number of seeds is difficult to eradicate, especially in pasture.

In the first season of growth there is a rosette of large leaves, 6 - 15 inches long. In the following year it grows a stout stem with tough strong fibres enclosing a thin rod of white pit . A densely crowded flower spike, about 1 foot long, at the top of the stem has stalkless sulphur-yellow flowers opening here and there on the spike; not in a regular progression from the base.

History: The down from the leaves & stem make excellent tinder, when quite dry, readily igniting on the slightest spark, and was, before the introduction of cotton, used for lamp wicks. The stalks were also dipped in suet to burn as a candle. The plant was given to cattle in 1600s against lung coughs. In Ireland it was cultivated because of the demand of sufferers of pulmonary consumption. It appears to have been used as an infusion to overcome consumptive coughing. Dried leaves were sometimes smoked in a tobacco pipe to relieve the irritations of the respiratory mucus membranes again to control the coughing. Fomentations and poultices of the leaves have been found serviceable in haemorrhoidal complaints. A Mullein oil, made by macerating the flowers in olive oil, is recommended for earache and discharge or inflammation of the ear. The oil is a valuable destroyer of disease germs and an admirable bactericide. The seeds are said to intoxicate fish when thrown into the water.

There are many other uses recorded but some seem rather farfetched to me like warts, toothache, removing splinters, migraines, etc. I think in ancient times it must have been considered a cure-all.

The book was first published in 1931.

* Verbascum virgatum Twiggy Mullein

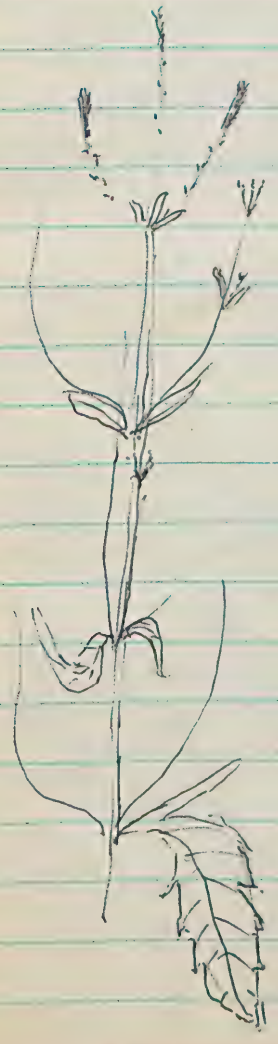
1994 Dec 30th Flowering along Downies lane
1995 Jan 15th " on Dargo weekend.
1996 " 20th " " Hotham "

*

Verbena officinalis — Common Verbena.

Dec 13 1997 Plant almost finished flowering in Norma O'Reilly's garden. Tall herb about 3ft high. Flowering stalk comes from ground. Flowers in dense clusters (the spikes). Each flower surrounded by bracts which become very strong & sharp as they dry. Flowers pale purplish with calyx ½ as long as the tube & with 5 teeth. Corolla 2 lipped with 4 stamens — two long & two shorter. Do not think this identification is correct because of the stamens being almost as long as the petals.

Dec 28 1997 Flowering along the creek at our place. These two plants — this & Nora's — didn't look alike. Nora's was much coarser in all respects. Our specimen is softer, scabrous attachments on ribs of branches very distant, about 1 cm apart in some sections, but between ridges with very short white hairs. Flower stalks paired except for final division which is in 3s. Flower stalks paired at right angles to the pair above. Lower leaves with mainly an incision almost to the midvein on each side near base of leaf otherwised deeply & evenly toothed. Whole plant spreading so as to appear with no central spike but spikes spreading. Flowers dense at top but becoming more distant as down the stem. Flowers with petals 3 up & 2 down but stamens are right down in the tube where the row of hairs is. They are very small with 2 on longer filaments than the other 2.



1998 May 6th letter from Dr. Parson says specimen I sent has been identified by Peter Michael of N.S.W. Herbarium was V. officinalis which he says is quite uncommon.

1998 May 8th letter from Dr Parsen consisted of paper by P. Michael - repeat of Page 296 about Verbena africana - description of V. officinalis in Common Weeds in South Africa & drawing marked V. officinalis but Dr Parsons has labelled 'This is V. africana. Will ask Dr Parsons about our specimen.

Bob, this looks interesting as he recognizes 2 new native ~~taxa~~ species. If you know of any populations, specimens would be welcome so we can work out which ones you've got.
Cheers Bob

Notes on *Verbena officinalis* sensu stricto and *V. macrostachya* (Verbenaceae) with new combinations in two closely related taxa

P.W. Michael

Abstract

Michael, P.W. (National Herbarium of New South Wales, Royal Botanic Gardens, Mrs Macquaries Road, Sydney, NSW, 2000, Australia) 1997. Notes on Verbena officinalis *sensu stricto and* V. macrostachya *(Verbenaceae) with new combinations in two closely related taxa.* Telopea *7(3): 293–297.* Two new combinations are made in *Verbena*, namely **V. gaudichaudii** and **V. africana** which, along with *V. macrostachya* (here lectotypified) are considered to be native Australian species previously included under *V. officinalis*. Notes are given relating to the typification of *V. officinalis* sensu stricto, which is quite uncommon in Australia. Leaves of *V. officinalis*, *V. gaudichaudii* and *V. africana* are illustrated.

Introduction

Australian plants in MEL, BRI and NSW called *Verbena officinalis* L. show much variation suggesting that there are different species involved. One of these is *V. officinalis* L. sensu stricto, while there are three others which I believe, on grounds of dates of collection, distribution and morphology, to be native.

Verbena officinalis L. sensu stricto

V. officinalis L. sensu stricto, which occurs widely throughout Europe and Asia, appears to be quite uncommon in Australia where it is certainly introduced. It has been collected occasionally in central and eastern Victoria and rarely in New South Wales. I have collected it only once in New South Wales, along Tuena Creek between Bathurst and Crookwell in February 1997. This taxon can easily be recognized by its leaf shape (see Fig. 1) and its very glandular bracts, calyces and flowering stems. It has been well illustrated many times in Europe and Asia, for example by S. Ross-Craig (1966: t.38) and by S.J. Roles in Clapham, Tutin and Warburg (1963: Fig. 1167).

The earliest mention of its glandular inflorescence that I have been able to find is in Schauer's diagnosis of *V. officinalis* α *vulgaris* in *Flora Brasiliensis* 9: 191 (1851) which I reproduce here:

caule erecto, brachiato-ramoso; foliis ambitu oblongis trifidis tripartitisve segmentis incisis vel laciniatis laciniis crenato-serratis; rhachi bracteisque calycibusque hirtellis glandulosisque.

Of the four syntypes of *V. officinalis* noted by Verdcourt (1992: 6), he has chosen as lectotype the specimen Herb. Clifford: 11, *Verbena* No. 6, fol. 6 (BM) (Jarvis et al. 1993: 98). I would expect this specimen to be from Central Europe (Linnaeus wrote: '*Habitat in* Europae *mediterraneae ruderatis*' in *Sp. Pl.* 1. 20–21 (1753) and 'crescit juxta areas & vias inque locis ruderatis per Belgium, Angliam, Galliam &c.' in Hort. Cliff.: 11 (1737)) and to have glandular inflorescences. Glandular inflorescences, although not mentioned by Linnaeus or in any of the works he cites, appear in all but one immature specimen in a large number of specimens examined by me from Europe and Asia in NSW and MEL.

Parsons.

Telopea 7(3), 293–297 1997

Notes on *Verbena officinalis* sensu stricto and *V. macrostachya* (Verbenaceae) with new combinations in two closely related taxa

P.W. Michael

Abstract

Michael, P.W. (National Herbarium of New South Wales, Royal Botanic Gardens, Mrs Macquaries Road, Sydney, NSW, 2000, Australia) 1997. Notes on Verbena officinalis *sensu stricto and* V. macrostachya *(Verbenaceae) with new combinations in two closely related taxa.* Telopea *7(3): 293–297.* Two new combinations are made in *Verbena*, namely **V. gaudichaudii** and **V. africana** which, along with *V. macrostachya* (here lectotypified) are considered to be native Australian species previously included under *V. officinalis*. Notes are given relating to the typification of *V. officinalis* sensu stricto, which is quite uncommon in Australia. Leaves of *V. officinalis*, *V. gaudichaudii* and *V. africana* are illustrated.

Introduction

Australian plants in MEL, BRI and NSW called *Verbena officinalis* L. show much variation suggesting that there are different species involved. One of these is *V. officinalis* L. sensu stricto, while there are three others which I believe, on grounds of dates of collection, distribution and morphology, to be native.

Verbena officinalis L. sensu stricto

V. officinalis L. sensu stricto, which occurs widely throughout Europe and Asia, appears to be quite uncommon in Australia where it is certainly introduced. It has been collected occasionally in central and eastern Victoria and rarely in New South Wales. I have collected it only once in New South Wales, along Tuena Creek between Bathurst and Crookwell in February 1997. This taxon can easily be recognized by its leaf shape (see Fig. 1) and its very glandular bracts, calyces and flowering stems. It has been well illustrated many times in Europe and Asia, for example by S. Ross-Craig (1966: t.38) and by S.J. Roles in Clapham, Tutin and Warburg (1963: Fig. 1167).

The earliest mention of its glandular inflorescence that I have been able to find is in Schauer's diagnosis of *V. officinalis* α *vulgaris* in *Flora Brasiliensis* 9: 191 (1851) which I reproduce here:

caule erecto, brachiato-ramoso; foliis ambitu oblongis trifidis tripartitisve segmentis incisis vel laciniatis laciniis crenato-serratis; rhachi bracteisque calycibusque hirtellis glandulosisque.

Of the four syntypes of *V. officinalis* noted by Verdcourt (1992: 6), he has chosen as lectotype the specimen Herb. Clifford: 11, *Verbena* No. 6, fol. 6 (BM) (Jarvis et al. 1993: 98). I would expect this specimen to be from Central Europe (Linnaeus wrote: '*Habitat in* Europae *mediterraneae ruderatis*' in *Sp. Pl.* 1. 20–21 (1753) and 'crescit juxta areas & vias inque locis ruderatis per Belgium, Angliam, Galliam &c.' in Hort. Cliff.: 11 (1737)) and to have glandular inflorescences. Glandular inflorescences, although not mentioned by Linnaeus or in any of the works he cites, appear in all but one immature specimen in a large number of specimens examined by me from Europe and Asia in NSW and MEL.

The MEL specs are with P.W. Michael.
Fl. Vic. acc. not yet re-done, Feb 98.

National Herbarium NSW
Mrs Macquarie's Rd,
Sydney 2000

Dr. R.F. Parsons
Botany Department
Latrobe University
Victoria 3083

15 April 1998

Dear Bob,

Thank you for the Verbena specimen. It is V. officinalis L. I have collected V. officinalis once more since my short paper appeared - in a garden near the centre of Bendigo in February this year

With kind regards

Yours sincerely

Peter

(P.W. MICHAEL)

Bon Thompson 215.

Bon/ interesting that yours is a scarce one. I'll let Neville Walsh know in case he can include your locality for it in Fl. Vic.

Fig. 3. Leaves of *V. africana* from plants collected by P. Michael at Lake Lalbert, Victoria (NSW) (× 1).

V. officinalis L. subsp. *africana* R. Fernandes & Verdc.

This taxon with glandular inflorescence and sharply dentate leaves (see Fig. 3), of unknown extent in Australia, was recently described from Africa by Fernandes and Verdcourt (1989). It also occurs in the Indian sub-continent and, I think, is native in Australia. I collected it at Lake Lalbert in Victoria in November 1996. Occasional specimens from far western New South Wales may belong here. I consider that it is sufficiently distinct from *V. officinalis* L. sensu stricto and the other native Australian *Verbena* species to give it specific status also. In the original description Fernandes and Verdcourt questioned whether it might not be considered as a species in its own right. The new combination required is:

Verbena africana *(R. Fernandes & Verdcourt) P.W. Michael*, comb. et stat. nov.

Verbena officinalis L. subsp. *africana*, R Fernandes & Verdcourt, Bol. Soc. Brot., ser. 2, 62: 305–10 and Tab. I (1989).

Type: Africa tropica: Zimbabwe: Harare (Salisbury) inter 'Avondale West and Mabelreign', alt. 1480 m, ubi, 21. viii. 1955, *Drummond 4858* (holo K, not seen; iso B, BR, LISC, S, SRGH, not seen)

The plate is also reproduced in Verdcourt (1992: 7). There is an excellent drawing by A. Walters of this taxon (as *V. officinalis*) in Henderson & Anderson (1966: fig. 128 p.259).

Acknowledgments

I thank Joy Everett, Karen Wilson, Peter Wilson and Max Gray for helpful suggestions, John Hosking for the collection of a specially requested range of specimens of *V. gaudichaudii* from Tamworth and Debby McGerty for the final preparation of the figures.

REPUBLIEK VAN SUID-AFRIKA
REPUBLIC OF SOUTH AFRICA

DEPARTEMENT VAN LANDBOU-TEGNIESE DIENSTE
DEPARTMENT OF AGRICULTURAL TECHNICAL SERVICES

NAVORSINGSINSTITUUT VIR PLANTKUNDE
BOTANICAL RESEARCH INSTITUTE

BOTANIESE OPNAME, MEMOIR Nr. 37
BOTANICAL SURVEY, MEMOIR No. 37

ALGEMENE ONKRUIDE IN SUID-AFRIKA

COMMON WEEDS IN SOUTH AFRICA

deur/by

MAYDA HENDERSON

en/and

JOHAN G. ANDERSON

Met inleidende artikels deur dr. L. E. Codd, Navorsingsinstituut vir Plantkunde, en dr. C. P. Naudé, Navorsingsinstituut vir Grond

With introductory articles by Dr. L. E. Codd, Botanical Research Institute, and Dr. C. P. Naudé, Soil Research Institute

1966

FIG. 128

Verbena officinalis L.

Verbenaceae

EUROPESE VERBENA

BESKRYWING.—Regop eenjarige plante, vertak in die boonste deel of vanaf die basis, tot 1 m hoog, met vlak, los spreidende wortels. *Stingels* vierhoekig, fyngeriffel, skurwerig tot glad. *Blare* teenoorstaande, die onderstes veerdelig of ten minste diep gelob, tot 9 cm lank, boonste lob groot, boonste blare kleiner, langwerpig tot omgekeerd-lansetvormig, sittend, min of meer stingelomvattend aan die basis, rande skerp getand, beide oppervlaktes skurwerig, effens tweekleurig. *Blomme* in lang, smal, los eindstandige pluimvormige are, skutblare ongeveer so lank soos die kelk, aangedruk behaard, krone smal, 3 mm lank, met spreidende lobbe, blou of ligpers. *Vrugte* ingesluit in blywende kelke op verlengde blomasse bestaande uit vier teenmekaar geplaasde langwerpige neutjies, skaars korter as die kelk, 2 mm lank, goudbruin, oppervlakte onbehaard, netarig.

VERSPREIDING.—Transvaal, Natal, O.V.S., S.W. Kaap, noordelike en oostelike Kaap.

OPMERKINGS.—Inheems in Europa en in die Kaap genaturaliseer meer as 100 jaar gelede. Dit is hoofsaaklik 'n onkruid in tuine, maar word soms lastig in landerye. In sommige dele van die oostelike Kaap staan dit bekend as 'n goeie wintervoer vir groot- en kleinvee.

Verbena bonariensis L. is 'n uiters wydverspreide onkruid in Suid-Afrika. Dit is inheems in Suid-Amerika en kom nou voor in al die provinsies van Suid-Afrika langs paaie, in landerye en in tuine. Dit is 'n growwe plant tot 1·5 m hoog, die blare is nooit gelob nie maar het 'n dik tekstuur, sterk beaard aan die onderkant, met skerp getande rande tot 10 cm lank, 2 cm breed, min of meer langwerpig. Die blomme word gedra in saamgedronge eindstandige are, die blomasse skaars verleng in die vrug. Die blomme is ongeveer 4 mm lank, pers en reik gewoonlik hoër as die jong, toe knoppe. Die neutjies is soortgelyk aan die van *V. officinalis*, dog die omsluitende kelk is ten minste een-derde langer as die vrugte.

EUROPEAN VERBENA

DESCRIPTION.—Erect annuals, branching in the upper part, or from the base, up to 1 m high, with shallow diffuse roots. *Stems* four-angled, striate, scabrid, to smooth. *Leaves* opposite, the lower pinnatifid or at least deeply lobed, up to 9 cm long, upper lobe large, upper leaves smaller oblong to oblanceolate, sessile, more or less clasping at the base, margins sharply dentate, both surfaces scabrid, slightly discolorous. *Flowers* in long, narrow, lax terminal paniculate spikes, bracts about as long as the calyces, appressed pubescent, corollas narrow, 3 mm long, with spreading lobes, blue or mauve. *Fruits* enclosed in persistent calyces, on elongated inflorescence rhachides, consisting of four closely connected oblong nutlets scarcely shorter than the calyces, 2 mm long, golden brown, surface glabrous, reticulate.

DISTRIBUTION.—Transvaal, Natal, O.F.S., S.W. Cape, N. Cape and E. Cape.

NOTES.—A native of Europe and naturalized at the Cape over 100 years ago. It is mainly a garden weed, but sometimes becomes troublesome in lands. In some parts of the eastern Cape it is said to be a good winter feed for large and small stock.

A related species, *Verbena bonariensis* L., is a very widespread weed in South Africa. It is a native of South America, and now occurs in all provinces of South Africa along roads, furrows, in lands and in gardens. The plants are robust, up to 1·5 m high, the leaves are never lobed, but are thick textured, strongly veined beneath with sharply dentate margins up to 10 cm long, 2 cm broad, more or less oblong. The flowers are borne in congested terminal spikes, the rhachides hardly elongating in fruit. The flowers are about 4 mm long, purple and usually overtop the young, unopened buds. The nutlets are similar to those of *V. officinalis*, but the enclosing calyx is at least one-third longer than the fruits.

FIG. 128—*Verbena officinalis* L.

This is V. africana — see Michael.

Fig. 1. Leaves of *V. officinalis* from plants collected by P. Michael along Tuena Creek between Bathurst and Crookwell, N.S.W. (NSW) (× 1).

Native Australian species

Tate (1883) wrote about the South Australian plant he knew as *V. officinalis*: 'as Backhouse noted it in 1837 along the borders of the River Torrens its claim to rank as an endemic is thereby firmly established'. It is clear now that there are a number of distinctive verbenas native to eastern Australia. Robert Brown (1810: 514, 1814: 68) would have included one or two of these in his concept of *V. officinalis* which he considered native to both Europe and Australia. Comments by Kloot (1984) on the introduced status of *V. officinalis* in Australia are misleading because he did not consider it as a variable complex. This complex includes three native species which are treated below.

***V. macrostachya* F. Muell.**

Lectotype (chosen here): Queensland: Peak Downs, F. Mueller, [1856] (MEL)

This species, described by Mueller (1858: 60), was later reduced to varietal status, *V. officinalis* L. var. *macrostachya*, by Bentham (1870:36). But I believe that this very hispid, glandular, erect plant with distinctive robust leaves and large flowers is undoubtedly worthy of specific status. It is so recorded in Henderson (1997). Mueller gave as locality of the type collections (his own and Leichhardt's), 'in planitieibus basalticis Australiae orientalis subtropicae'. I select as lectotype Mueller's own sheet from Peak Downs, Queensland (MEL 583551). Bentham *loc.cit.*, did not cite, nor have I seen, Leichhardt's specimen(s). There are other specimens of this species from Queensland, New South Wales and Central Australia. The drawing labelled *V. officinalis* in Jessop (1981: 296) appears to be of it.

can send if needed.

***V. officinalis* L. var. *gaudichaudii* Briq.**

This variety was described by Briquet in 1907 (see below) as follows:

A var. *genuina* Briq. differt foliis caulinis elongato-lanceolatis, angustis, profunde inciso-dentatis, ad 7 cm longis et 8 mm latis, appendicibus circ. 2–5 mm altis, superioribus lineari-lanceolatis pauce et superficialiter dentatis, summis linearibus subintegris. Planta habitu a typo valde aliena, tamen vix segreganda.

I believe that plants like this described by Briquet occur throughout a large part of eastern Australia, that they are definitely native and that they are sufficiently distinct to raise to specific level. Many of these plants have no obvious glands in the inflorescence and quite inconspicuous vestiture. A practical reason for giving this taxon specific status is that it appears to include significant intraspecific taxa which await further elucidation.

Accordingly, I make the new combination:

Verbena gaudichaudii *(Briquet) P.W. Michael*, **comb. et stat. nov.**

Verbena officinalis L. var. *gaudichaudii* Briq. in Annuaire Conserv. Jard. Botan. Genève 10: 105 (1907).

Type: Australia: Port Jackson, *Gaudichaud 144* (holo G, not seen)

The distinctive leaves of *V. gaudichaudii*, well described by Briquet, are illustrated in Fig. 2.

Fig. 2. Leaves of *V. gaudichaudii*, all from N.S.W. (× 1) **a**, from small plant collected by J. Hosking in Oxley Park, Tamworth (NSW); **b**, from large plant collected by J. Hosking in Oxley Park, Tamworth (NSW); **c**, **d**, from plants collected by P. Michael, near Gordon Duff Bridge, Forbes (NSW); **e**, from plants collected by D. King along Ellis Lane, Forbes (NSW).

Fig. 3. Leaves of *V. africana* from plants collected by P. Michael at Lake Lalbert, Victoria (NSW) (× 1).

***V. officinalis* L. subsp. *africana* R. Fernandes & Verdc.**

This taxon with glandular inflorescence and sharply dentate leaves (see Fig. 3), of unknown extent in Australia, was recently described from Africa by Fernandes and Verdcourt (1989). It also occurs in the Indian sub-continent and, I think, is native in Australia. I collected it at Lake Lalbert in Victoria in November 1996. Occasional specimens from far western New South Wales may belong here. I consider that it is sufficiently distinct from *V. officinalis* L. sensu stricto and the other native Australian *Verbena* species to give it specific status also. In the original description Fernandes and Verdcourt questioned whether it might not be considered as a species in its own right. The new combination required is:

Verbena africana *(R. Fernandes & Verdcourt) P.W. Michael,* **comb. et stat. nov.**

Verbena officinalis L. subsp. *africana*, R Fernandes & Verdcourt, Bol. Soc. Brot., ser. 2, 62: 305–10 and Tab. I (1989).

Type: Africa tropica: Zimbabwe: Harare (Salisbury) inter 'Avondale West and Mabelreign', alt. 1480 m, ubi, 21. viii. 1955, *Drummond 4858* (holo K, not seen; iso B, BR, LISC, S, SRGH, not seen)

The plate is also reproduced in Verdcourt (1992: 7). There is an excellent drawing by A. Walters of this taxon (as *V. officinalis*) in Henderson & Anderson (1966: fig. 128 p.259).

Acknowledgments

I thank Joy Everett, Karen Wilson, Peter Wilson and Max Gray for helpful suggestions, John Hosking for the collection of a specially requested range of specimens of *V. gaudichaudii* from Tamworth and Debby McGerty for the final preparation of the figures.

References

Bentham, G. (1870) *Flora Australiensis*, vol. 5 (Reeve: London).
Brown, R. (1810) *Prodromus Florae Novae Hollandiae* (R. Taylor: London).
Brown, R. (1814) General Remarks — Geographical and Systematical on the Botany of Terra Australis. (London). Also in M. Flinders (1814) *Voyage to Terra Australis*, vol.2., Appendix III, p.592 (London).
Clapham, A.R., T.G. Tutin & E.F. Warburg (1963). *Flora of the British Isles: Illustrations* III (Cambridge University Press: Cambridge).
Fernandes, R.B. & B. Verdcourt (1989) A new African subspecies of *Verbena officinalis* L. *Bol. Soc. Brot.*, ser. 2, 62: 305–10.
Henderson, M. & J.G. Anderson (1966) *Common Weeds of South Africa*. Memoir 37 of the Botanical Survey of South Africa.
Henderson, R.J.F. (ed.) (1997) *Queensland Plants. Names and Distribution*. (Queensland Herbarium: Brisbane).
Jarvis, C.E., F.R. Barrie, D.M. Allan, & J.L. Reveal, (1993) A list of Linnaean generic names and their types. *Regnum Vegetabile*, vol. 127.
Jessop, J. (ed.) (1981) *Flora of Central Australia* (Australian Systematic Botany Society/Reed: Sydney).
Kloot, P.M. (1984) The introduced elements of the flora of Southern Australia. *J. Biogeography* 11:63-78.
Mueller, F. (1858) *Fragmenta Phytographiae Australiae* 1: 60.
Ross-Craig, S. (1966) *Drawings of British Plants*. Part 23 (Bell: London).
Tate, R. (1883) Bibliographical notes refuting the alleged alien nature of two species of South Australian Plants. *Trans. Proc. Rep. Royal Soc. South Australia* (1882-3) 6: 174.
Verdcourt, B. (1992) *Flora of Tropical East Africa–Verbenaceae*. (A.A. Balkema: Rotterdam/Brookfield)

Manuscript received 5 August 1997
Manuscript accepted 10 November 1997

Cliff's

1545.

I VERBENACEAE

Verbena officinalis

33211 Vic. V.54 AL-S.A. ~~East Gippsland~~ G — 28 K Willis Snowy R. near N.S.W. Border A.C.B.; N.P.A.; Melb
A.C.B.; K.C.R.; E.W.F. 6-1-1970

37633 Vic. W39-4 G.L.H-S.A. " D-14A Glenaladale Nat. PK. A.C.B. 26-3-1971 Melb
MITCHELL RIVER SP

37377 Vic. W27-1 AL-S.A. " H -3+E New Guinea TK.; E. of Tulach Ard Rd. A.C.B. 12-3-1971 Melb
SNOWY RIVER NP

39496 Vic. A45/F37 MA-S.A. Kulkyne Forest; mouth of Chalka CK. L.G. Chandler 6-8-1960 Melb
C-8D

39291 Vic. A45/Hattah Lakes Nat. PK.; E-side of Lake Hattah A.C.B. 11-9-1960 Melb
C-8D

42361 Vic. A ? J-N.C. ~~[illegible]~~ m5-MEL-S.A. Alexandra Elmhurst F. Robbins about 1935 Melb
S.W.-S.A.

43181 Vic. E14 Portland; Tyrendarra; Nr. Jn. of Darlots CK. + Fitzroy R. A.C.B. 1950 Melb
C-11C → F.R.

1062 Vic. A45 MA-S.A. Hattah Lakes Nat. PK. A.C.B. Oct. 1948 Melb
C-8D

43180 Vic. E13 S.W.-S.A. Portland; Gosae; Surry R. near Taylors A.C.B. Feb. 1946 Melb
C-11C Cobbobonee SF

56183 Vic. F39 MA-S.A. I-24A Lake Carpel ± 19 km. S.E. of Robinvale P.O. A.C.B. 4-5-1977 MEL
W.L. Reg. (LCC D2)

56152 Vic. F39 " " I-24A Lake Powell W.L. Reg. (LCC D2) ± 16 km. S.E. of Robinvale P.O. A.C.B. 4-5-1977 MEL

64032 Vic. Q37 MVSA G-42B Tocumwal RP 3 km SW of Tocumwal PO A.C.A. 4-6-1979 MEL

67546 Vic. W9 EGSA B-7E SNOWY RIVER NP A.C.A. 22-1-1980 MEL

67870 Vic. V54 " D-12B TINGARINGY NP A.C.B. 30-1-1980 MEL

72146 Vic. S48 MESA K-(Rd) Road W of Neerim A.C.A. 2-12-1982 MEL

77432 Vic. W37 GLH-SA C-15B FREESTONE CREEK NFZ A.C.A. 28-9-1984 MEL

78996 Vic. W26 " G-34E MURRINDAL RIVER NFZ A.C.B.; J.R.T. + J.G.E. 28-10-1984 MEL

Verbena officinalis II VERBENACEAE

79518 Vic. W33 GLH-SA G-34A TAMBO RIVER NFZ A.C.B. 3-5-1985 MEL

83374 Vic. G36 MVSA ✓ A-3B MURRAY RIVER R A.C.B. 30-12-1985 MEL

81928 Vic. Q47; R2 " h-56b Murray Valley Hwy. 2d R. A.C.B. 15-11-1985 MEL

82127 Vic. Q37 " G-42B TOCUMWAL R P A.C.A. 17-11-1985 MEL

81334 Vic. L53 " F-40B BARMAH S P A.C.B. 29-9-1985 MEL

80267 Vic. M6 " ✓ D-22B EUCHUCA RP A.C.B. 9-9-1985 MEL

83653 Vic. L52 " ✓ E-32B BARMAH RP A.C.A. + A.H.M. 3-1-1986 MEL

83687 Vic. M7 " ✓ E-39d Broken Ck PLWFR A.C.A. + A.H.M. 3-1-1986 MEL

Bon I notice Cliff hasn't collected it from your part of Gippsland.

Veronica ~~plebia~~ calycina

1968 Oct 4th Flowering at Cowwarr. Small creeper with small leaves approx ½" across, flowers tiny and seed capsule heart-shaped.

1970 Oct 11th Flowering at Heyfield. Big calyxs becoming leafy.

1994 Oct 25th Plants in seed in Traralgon South Reserve. Sepals enlarging in fruit. Stems villous leaves green (not purplish) obtusely toothed & petioles (of uppermost leaves at least) much less than half the length of the blades. Capsule strongly ciliate on margins.

~~Oct 28th~~

Oct 30 Growing in Dawson Water Reserve

1995 Jan 15th " " Dargo weekend.

1997 Apr 5th " " ATPM Reserve – Grand Ridge Rd.

2002 Nov 23rd " – Holey Plains State Park

2004 Apr 3 " " Colley's Rd. Block.

Veronica Ciracillis (Slender)

1966 Nov 27th Flowering along Clark's Rd.
1968 Nov 10th " " " "
1971 Jan 17th " at the Springs towards Mt Useful. Soft plant with pointed toothed leaves. Plant about 1ft high. Flowers terminal lovely blue.
1972 Jan 30th Flowering at Mt Howitt.
1973 Mch. 11th Growing at Willung Sth
1978 Jan Plus another species
[C. Beauglehole & R. Parsons]
1988 Jan. 24 Plants flowering on Bennison Plain. Lax plants, leaves entire - not toothed, narrow ½" long, flowers blue.
1989 Jan 14 Flowering at Wulgulmerang - plants lax, flower petals falling easily in one piece.
1991 Jan 26th Flowering near Tulloch Ard Road near Cielantipy.
1992 Jan 25th " near Buckety Plains.
1993 Jan 31 " in marshy area in Errinundra NP.
1995 Oct 28th " " Wonthaggi Heathlands.
1996 Sept 7 Growing on Tramway Rd. near Churchill in Significant Roadside Area (Ken Harris).
1997 Jan 18th Flowering on Livingstone Ck. Track ~~Bentley's Plain~~

Veronica notabilis Forest Speedwell.

1994 Jan 16th Flowering at the car park at Mt Erica.
1994 Nov 9th " on Licola weekend
1995 Jan 15th " " Dargo "

* ~~Prebatium~~ Veronica peregrina

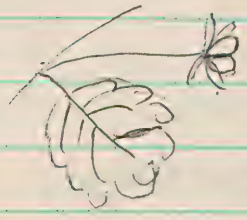
1921 Jan. 17th Flowering in swampy areas at Springs near Mt Useful leaves opp ▭ lower ones toothed with rounded edges ⌒. Stalks about 3" - 4" long flower very small white with blue stripes. Calyx longer than seeds

Jan 30th Flowering on plains at Howitt Springs.

1922 July 22nd Plant growing at Fairy Dell.

* Veronica persica Persian Speedwell.

1991 March 11th Flowering in the garden, nuisance weed. leaves hairy, crenulata, pedicilate flowers with long pedicles. calyx 4 - large, capsule orbicular 2 lobed with hairs around margin. keeling margin between lobes. flowers blue.



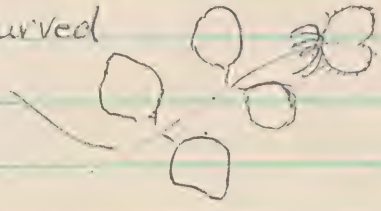
Veronica plebeia Trailing Speedwell.

1994 Jan 16. Plant in fruit on Thomson River Walk near Walhalla Rd. bridge. Similar to V. calycina but leaves acutely toothed & petioles ± half as long as blade. Sepals hardly enlarging in fruit & margin of capsule non-ciliate.

1994 Oct 25th Plant growing in Traralgon Sth Reserve. Identified by hairs on stems being microscopically pubescent with short decurved hairs & leaves in our specimen purplish-tinged on undersurface. leaves acutely toothed & petioles ± half as long as blade.

Oct 30 Growing in Dawson Water Reserve.

Veronica serpyllifolia Thyme Speedwell.

1991 March 11" Flowering in garden but not a nuisance weed. Very procumbent plant with small and larger leaves. leaves opposite, entire, oval, pedicilate, veins from central point at stem . Stems of plant hairy. Flowers whitish; veined purple. in terminal clusters. or racemes. Capsule heartshape, calyx recurved  hairs on margin of capsule glandular.

*

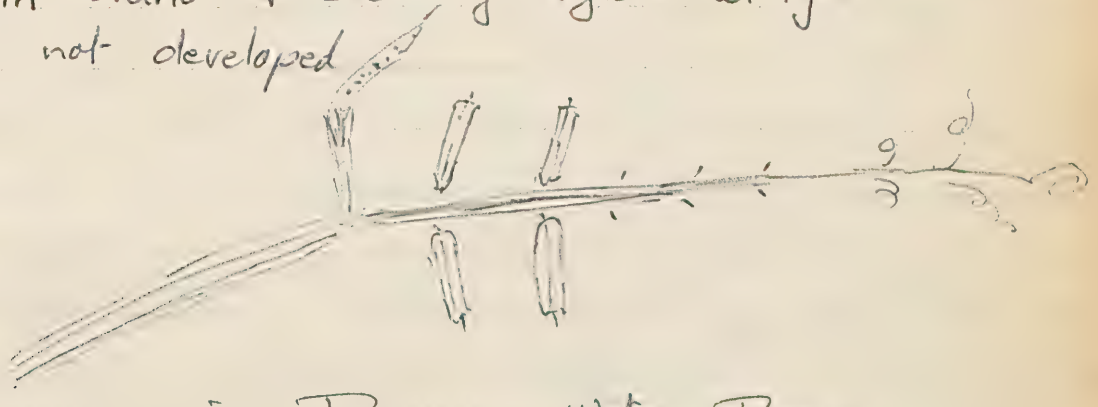
Vicia hirsuta — Tiny Vetch

2002 Nov 30th — Growing in Toongabbie Wetland.
2006 Sept 30th — " Seneni's Track.

* sativa ssp nigra

Vicia (angustifolia) Narrow-leaf Vetch.

1989 Nov. 4th Flowering in West Cully, Yallourn North.
Flowers purple, large app. 15mm long on very tiny pedicle, two flowers to the leaf base. Calyx teeth 6 long, pointed apps. equal. 7-8 mm. long.
Leaflets 5 pairs with tendril coming from the end.
Leaflets ~~w~~ linear 15mm with truncate apex with mid vein extended. Leaflets with very short stem
Main "branch" & stem of leaflets winged
Pods not developed



1994 Oct 30 Growing in Dawson Water Reserve.
" " " " Rway "
1995 Dec 12th " " Railway Reserve near Traralgon
2002 Nov 30th " " Toongabbie Wetland.

*

Vicia tetrasperma. Slender Vetch

2002 Nov 30th Growing in Toongabbie Wetland.

Villarsia Exaltata (Yellow Marsh-flower)

1966 Nov 27th Flowering T'gon Jth Reserve.
1969 Oct 18th " Rosedale
1971 Oct 24 " at Reidi Rd amongst the pines.
1994 Oct 30 " in Dawson Water Reserve.
1994 Dec " " Railway Reservoir Conservation Reserve, Traralgon.

Villarsiae reniformis Running Marsh-flower

1994 Nov 26. Growing in APM block Stradbroke Sth. Gipp. H'way
1995 Oct 28th " " Wonthaggi Heathlands
1997 Jan 18th " " Bentley's Plain.
1999 Oct 25th " " Gellion's Run swamp area.
2002 Nov 25th " " Holey Plains State Park.

Viminaria juncea Golden Spray.

1971 Nov 12" Plant grows in 80 acres at corner of Reid's Rd - also on Chessum Road & along road into Yallourn. Also at Wilson's Promontory.

1995 Oct 28" Growing on Wonthaggi Heathlands

Dec 12" Flowering near RPM block at Stradbroke near fenceline between native bush & pine plantation.

* Vinca major Blue Perriwinkle

1995 Apr 12" Growing in Drouin Water Reserve.

Violets

You are interested in Viola hederacea & how it has been divided into several species over the years. ~~little~~ smaller leaves & flowers
(V. suberiana was divided from V. hederacea ~~it~~ in 1827)
Leaves varied in shape & size from big to small
Another diagnostic feature is the length of the flower stalk in comparison to the leaves
Another feature is the position of the bracteoles on the flower stalk ~~if present~~
There are 3 introduced species, Viola in Vic. V. arvensis the Field Pansy in the High Country.
V. riviniana Common Dog Violet Sherbrook Forest & Nareen - probably garden escape elsewhere
V. odorata Common Violet or Sweet Violet
Native sp There are V. betonicifolia - Showy Violet.
V. caleyana - Swamp Violet
Small species V. sieberiana Tiny Violet
V. cleistogamoides - Hidden Violet as sp. sp. separated 1982
V. fusioviolacea - + own species 1986 separated as sub sp. 1982 - & became species 1996.
V. improcera -
V. hederacea can have large or small flowers. However this species still has 7 forms that have only the names of V. hederacea Form A-C.
Previously 3 of the above species ~~were part~~ of V. hederacea
Then it was in included in V. hederacea in 1831 became V sieber in 1835 went back to V. hederacea in 1917 & finally to V sieberiana in 1982 showing the experts have had a lot of trouble with these little violets.
V hederacea. Form B. is present species — Lax plant of lower elevations, grows in moist sites or along creeks & rivers inland. Leaf 30mm wide. ~~Flower~~

* Viola arvensis Field Violet

1995 Jan 15th Flowering on Dargo weekend.
1996 " 20th " " Hotham "

Viola Betonicifolia (Purple)

1966 Oct 1. Flowering in our bush just down from Rifle range butts towards road.

1969 Aug 29th Flowering at Granite Rock. leaves much pointed & more raised at the round part. Flowers beautiful deep purple. Plant more of a tuft than a creeper.

1970 Jan 24th Flowering at Wulgulmerang. 9" high and very deep purple color.

1969 Nov 2nd Flowering at Briagalong

Dec 15th " in our bush.

1970 Oct 17th " at Briagalong.

1971 Jan 17th Plant growing on flat before final climb to Mt Useful. (vf)

1971 Jan 30th Flowering at Howitt Plains - Mt Howitt Hike. large deep purple flowers ¾" long on 9" stems. leaves also with very long 9"-10" stems

1974 Dec 7th Flowering at Tamboritha - Bennison Plains. Beautiful dark colored flowers.

1991 Oct 12th Flowering at Mt Hedrick. leaves did not seem as dark or as smooth as we are usually used to.

1995 Jan 15th Flowering on Dargo weekend.

Oct 25th " " Mt Hedrick

1996 Jan 20th " " Hotham weekend.

1997 " 18th " " Livingstone Ck Track & Mt Nugong.

1999 " 23rd Recorded on Cobbanitpy weekend.

2006 Sept 29th Flowering at Mt Hedrick.

LA TROBE UNIVERSITY

DEPARTMENT OF BOTANY – HERBARIU

Viola ~~Sieberiana or~~ cleistogamoides.

= Viola hederacea ssp. cleistogamoides.

I have had a lot of difficulty working out this specimen. It was much smaller when collected but I put it in a saucer of water until I could get at it. I just couldn't believe how much it grew in a few days.

Collected at Edward Hunter Reserve Moe.

4.11.95.

Conf. N.H. Scarlett 22 Nov. 95

Viola cleistogamoides Hidden Violet

1995 Nov 4th Flowering in Edward Hunter Reserve. Keyed it out in Flora of N.S.W. It is not V. sieberiana because the flower scape is about the same height as the leaves & not much higher as in V. sieberiana. Leaves have only 2 teeth on each side of apex. Flower was cream not purple to white. Flower is hidden in the calyx.

Hope this identification is correct. It is recorded in T. by Cliff.

Neville Scarlett confirmed identification. He says lateral petals are bearded in this species but not in Viola sieberiana.

I noted that I put the specimen in a saucer of water & was surprised at how much bigger it grew.

1995 Oct 28th Flowering on Wonthaggi Heathlands.

1996 Nov 7th " " Gifford Rifle Range.

Dec " " Old Melb Rd near Latrobe Rd, Morwell.

1995 In Muelleria Vol 9 1996. T.A. James describes a new species of these tiny violets. This one has dark 'blackish-violet' petals. Illust. Distribution montane peatland in damp soles or in alpine herbfields, often along creeks. V. fuscovalacea

We had it identified by Neville Walsh at Ben Winch Swamp in Nov. 1991.

VIOLA HEDERACEA

We are interested in Viola hederacea and how it has been divided into several species over the years. The plant is very variable in leaf shape and size from big to small. Another diagnostic feature is the length of the flower stalk in comparison to the leaves, also the position of the bracteoles on the flower stalk. The size of the flowers are very variable.

Under Viola hederacea there are 7 forms from A to G in the Flora of NSW but in the Flora of Victoria only mention is made of these forms and they are not described. Viola hederacea is separated from other violets by the facts that the plants are stoloniferous , the petiole is glabrous or if hairy the hairs are not deflexed, flowers without scent or faintly scented, lower petals shallowly pouched but not spurred, lateral petals bearded, capsule usually glabrous and ovoid, flowers mostly two-coloured . We think the present specimen is Form B as it is a lax plant of lower elevations, grows in moist sites along creeks and rivers inland and has a leaf width up to 30mm.

To show the problems the experts have had with these small violets the present Viola sieberiana was divided from Viola hederacea in 1827. However in 1831 it was included in Viola hederacea as var. sieberiana, then in 1835 is became Viola sieberi , went back to Viola hederacea var. sieberi in 1917 and finally to Viola sieberiana in 1982.

Other small violet species to be separated from Viola hederacea are Viola cleistogamoides - Hidden Violet, became a subsp. in 1982 and a species in its own right in 1986. Viola fuscoviolacea was separated in 1982 and became a species in 1996.

Viola hederacea + others

Species:- V. eminens

From near Melbourne through eastern Victoria to far southern N.S.W Often from high country.

V. × sophodes

Scattered through highlands of Victoria. Delegate River, Mt Reynard + Mt Wellington.

Key on P. 24 Muelleria Volume 18, 2003 includes V. fuscovolacea; V. clerstogamoides; V sp nov A[1] V. sieberana[2]; V. sp. nov B[3], V. hederacea sens str; V sp nov C (= V. hederacea subsp. perrenifornis)[4]; V. banksii + V. eminens.

Flora of NSW Vol 1. P. 438 gives A-G forms of V. hederacea in N.S.W.

~~Flora of Victoria~~ Muelleria V. banksia distribution north of the Queensland - NSW border!

There are also V. sp. nov A' + V. sp. nov B[3].

There are to be subsequent papers + further data.

V.

Viola Hederacea (Ivy leafed)

1866 24 Sept Flowering at Darlamurla

Nov 13th Flowering opp Mrs. O. hades. Rather prolific this year and with stems longer than usual.

1967 Feb 6th Flowering at Erica.

" Aug 27th " in A.P.M. reserve.

Sept 23 " along Blackwarry - Cormandale Rd.

1968 Jan 18th " at Baw Baw. Beautiful specimens, patch on top very thick and all violets very tall & large.

Jan 31st Flowering in orchid bed in garden. but not in wildflower bed. Is this because of more shade or because they got some yeast? Will put yeast on plants in wildflower bed..

Mch 24th Still flowering in orchid bed only.

1969 Oct 27th Flowering Reid's Corner

1969 Jan 5th " Dead Horse Gully

Jan 26th " Our Bush

July 20th " Cilengarry Mth.

Aug 29th " at Granite Rock

Sept 13 " Rosedale

1970 Jan 18th " Seminis Track.

1969 Oct 11th " Burgoins Gap

1970 Jan 1st " Tambourine Saddle

Mch 7th " along the shoreline at Waratah Bay.

Aug 23rd Flowering at Holey Hill Trig Pt.

Sept 5 " at new area at Rosedale.

" 15 " Tigon 5th Reserve.

" 26 " in pines at Longford.

Oct 1 " new area Rosedale

1970 Oct 17th Flowering at Briagalong.
1971 Jan 17" " " Mt Useful in real profusion, plants - flowers large in dense areas. Flowers very deep purple in centre & white around outside. A really lovely sight.
Jan 30 Flowering at Howitt Springs and on Mt Howitt Hike. Beautiful large specimens on stalks app. 1ft high and lovely dark mauve in centre. Max brought lovely specimens back from Mt Howitt. He also brought back some specimens as small as sieberianna about 1/8" flowers on stalks about 1" high. These small specimens were sieberianna.
Oct 23rd Flowering at Morwell Nat. Park.
24th " " Reids Corner.
1972 Feb. Plants growing at Mt St. Gwinear probably flowering but cannot be sure.
1973 Jan 26th Flowering at Mt Baw Baw
1978 Jan. Extra species (?) with woolly blue flowers & fewer hairs in the throat. [C Beauglehole & R. Parsons]
1991 Nov 7th Very small flowered plant growing in disturbed area in Ben Winch Swamp was identified as V. hederacea ~~var~~ subsp. fusco violacea (See letter after homandra nana) Ben Winch Swamp at eastern end of Holey Plains S.P.
1993 Jan 31 Flowering in Errinundra N P
Aug 9th Many species of V hederacea now.
1994 Nov 26th Plants in APM block Stradbroke Sth. Gipp. H'way.
Oct 30 " " Dawson R'way Reserve.

Viola hederacea (cont) P.2.

1995 Apr 12th Drouin Water Reserve
Oct 25th Mt Heddrick.
28th Wonthaggi Heathlands ssp hederacea

1997 Apr 5th Growing in APM Reserve - Grand Ridge Rd. Had quite large leaves.

1999 Oct. 23rd Flowering in dry swamp at east end of Gellions Run. This was a small flower about 1 cm across & stood about 1½" high. By the shape of the leaf I think it was probably Form B of Viola hederacea as shown in Flora of N.S.W. Vol 1.

2001 Aug 27th Flowering in Newborough bush
Dec 1 " " " " Sandy Ck.

2004 Apr 3 Growing in Colley's Rd. Block.

2006 Sept 30th " " Senenis Track
Nov 4 " " Springsure area

Viola sieberiana.

1969 Sept 4th Flowering at Wilson's Prom. A very low, tiny prostrate plant with minute white flowers more closed like a trumpet. leaves rhomboid shape going to a point at stem instead of usual crescent around stem in most violets. leaves dark, stalked. Plant without stem, leaves from root in a cluster then a long runner to next root & another cluster of leaves.

1971 Jan 30th Flowering on Mt Howitt Hike. Plants very tiny leaves on long stems about $\frac{1}{2}$" to $\frac{3}{4}$" long but still rhomboid shape. Flowers were deep purple standing high on stems of app. 2".

1994 Nov 26 Plants in APM block Stradbroke Sth. Gipp Hiway.
Oct 28 " " Tigon Sth Reserve.

1995 Muelleria Vol 9 1996. Has new species of Viola that belongs to the V. sieberiana complex. This is V. ustoviolacea with blackish-violet flowers. Grows in damp sites at edge of montane peatland or in alpine herblands often along creeks. Also described in Flora of NSW as V. sp A. Specimens at Mt Howitt could have been this species.

cuneata

Viltadinia (triloba) New Holland Daisy.

1970 Nov 25th Flowering at Briagalong.

1973 Oct 28" Plant growing in Avon Country.

1994 Nov 7" Flowering at Licola. leaves . A number of flowers on very long stalks from leaf bases on upper part of leafy stem. Flowers blue.

1999 Jan 23rd-24th Recorded for Gelantipy weekend.

Vittadinia (cuneata) gracilis Woolly New Holland Daisy

1992 Jan 25th Flowering up near Buckely Plain. Low bush, flower blush, leaves linear but with wedge shape at apex; sometimes wedge seems divided flowering stalks long, heads singly. Achenes very long, pappus with capillary bristles, numerous.

1993 Aug 9th Census - 4th ed. - V cuneata as per Willis is now V. gracilis but there is still V. cuneata with 3 varieties. Taken V. triloba = V gracilis ~~cuneata~~ so that explains it.

Viltadenia muelleri

Apr. 23 1982 Boisdale public land
Do not think it is Aulaba
because of acuminate leaves
ligules not 20 - 40
involucral bracts blunt
with brushlike hairs at
apex.
Leaves bristly hairy.
Achene hairs between ribs
& clavate with different basal
leaves
Stems vaguely ribbed
with minute ~~glandular~~
~~rigid~~ hooked single hairs.
sparsely dispersed

Vittadinia muelleri Narrow leaf New Holland Daisy

1994 Nov 7th Flowering on Keola weekend. Leaves very fine & fairly dense. Many flowers. Involucre bracts blunt with tuft of hairs at apex. Flowers singly. Leaves sparsely hairy with rib like appearance, rolled.

* Vulpia bromoides Squirrel-tail Fescue

1992 Aug. Growing in Railway Reserve west of station at Rosedale.

One-sided pl culm, panicle long exserted from leaf sheaf, lower glume at least half length of upper glume.

Book Nov 14 Growing in Railway Reservoir Reserve, Tigan

Vulpia myuros Rat's Tail Fescue.

1995 Jan 15 Plant growing at Hanky's Plain & I think at King's Spur Lookout.

Description in grass book.

Wahlenbergia ceracea ~~serratum~~ Waxy Bluebell.

1991 Jan 30th Flowering on plains at Howitt Springs. Also large flowers with pale backs to petals and a more nodding habit.

1991 Jan 27th Flowering on Rocky Plains near Wulgulmerang.

1993 Jan 31 " in Errinundra NP in marshy area.

1995 Jan 15th Flowering on Dargo High Plains.

1996 " 20th " " Hotham weekend.

1997 " 18th " " Livingstone Ck Track near Omeo

1999 " 23rd " " Gelantipy weekend. Identified from ~~specimens~~ brought back.

Wahlenbergia (Bicolor / Communis

1966 Nov 2nd Flowering on Clark's Rd.

1992 Dec 17th Flowering along Calligree South Road.
Plant branched - one branch along ground + then other branches spreading up + branching again

Plants about 15" high, branching into 2 sections about 2" from flowers on each branch. Leaves mostly alternate + towards base although tiny leaves on upper ~~alternate~~ branches but none past last branch to flower. Lower leaves ± 1" long, slightly curved with midrib + ± 3mm wide, narrow with blunt point, glabrous. Stems numerous. Corolla bright blue inside but whitish outside; limb. 16mm across, tube ± 4mm, capsule 4mm long. Tube as long or longer than sepals. Capsule narrowly obconic. Plant growing in very dry conditions. Capsule 5mm when dry.

1994 Mch 20th Flowering along Henderson's Rd, Terrangabbie.

1994 May 1 Plant in seed on Huston's property near Parkamunla.

Nov 26th Flowering in APM block Stradbroke Sth Cupp. H'way.

Nov 1. " " Casuarina Reserve Fulham

Oct 30 " " Dawson R'way Reserve.

1995 Oct 25th " " Mt Heddrick

Dec 12th " " Railway Reserve near Tranalgon

1999 Jan 23rd " " Gelantipy weekend. Identified from specimen brought back.

Wahlenbergia gloriosa Royal.

1971 Jan 30 Flowering at Howitt Springs plains, beautiful deep blue large flowers and the color also on backs of petals. Erect habit, leaves on base of stem opp. in 3 groups on our specimen, leaves about 3/4" long largest and smaller as they go up stem.

1997 Jan 18th Flowering at Mt Nugong.

Wahlenbergia · Ciracilenta Annual Bluebell

1966 Nov 2nd Flowering on Clark's Road.
1967 April 9th " in APM bush at back of house.
Plants very bushy, flowers very small with round seed boxes. Could bushy plants be due to ground being disturbed? Not many leaves on plants, mostly stalks. Centre of flowers - three lobed & very hairy.
1969 May 16th Probably this plant along lime-pit Rd. Rosedale in flower.
1991 Mch 2nd Flowering on Andrea Lindsay's Block Quadrant 14.
1992 Jan 31 " in Errinundra N.P.
1994 Nov 26 " " APM block Stradbroke Sth. Gipp. H'way.
Oct 25 " " T'gon Sth Reserve
Oct 30 " " Dawson Water Reserve.
1996 Jan 20 " " Hotham weekend
2000 Dec 3rd " " Sweetwater Ck. Reserve.
2001 Aug 25 " " Newborough bush.
Dec 1 " " " " Sandy Ck.

Wahlenbergia (Quadrifida) Circalis Sprawling.

1966 Nov 2nd Flowering on Clark's Road
1967 Feb 19th " at Wolfe's - very blue.
1970 Nov 20th " " Briagalong.
1985 Dec 28th " " in Mullungdung Forest. Harrups H'way.

Flowers small; paler on outside compared with inside. Sepals longer than tube, come past where petals divide but not very much, approx. the same length as ovary - both 2 mm long. Ovary funnel-shaped but differentiating from stem. Ovaries grow while developing to maturity so therefore are much longer than sepals at maturity. Stems of flowers fine and branched about 2"to 5" below flowers and can branch lower down on plant too. Leaves approx 1" at base, alternate and many leaves or bracts up the stems. Bracts can be up flower stems also.

1991 Jan 29th Flowering on Rocky Plains near Wulgulmerang.
1991 Mch 2nd " " Andrea Lindsays block quadrant 2A.
1991 Oct 12th " on Mt Hedrick. Also as well as the usual form of this plant there were plants further up the mount on the stony areas that were only 1" high with everything in proportion.
1993 Mch 13 Flowering along Hendersons Rd, Toongabbie. Plants very much branched & with few leaves but think it may be time of year.
1994 Jan 17th Flowering along Thomson River Walk near Wellhalla Rd bridge.
1994 May 1 Plant in seed on Husken's property near Darkamurla.
Nov 26th Flowering in 8AM block Stradbroke Sth. Gipp. H'way.
Nov 1 " " Casuarina Reserve Fulham
Oct 30 " " Dawson R'way Reserve.

1995	Apr 13th	Growing	Drouin Water Reserve.
	Oct 25th	"	Mr Heddrick.
1996	Jan 20th	"	Hotham weekend - flowering.
1995	Dec 12th	"	on Railway Reserve near Traralgon - flowering
1997	Apr 5th	"	" APM Reserve - Grand Ridge Rd.
2001	Dec	"	" Sandy Ck bush, Newborough.

Wahlenbergia gracilicola. Granite Bluebell

1996 Jan 20th Recorded for Hotham weekend.

Wahlenbergia gymnoclada Naked Bluebell

1985 Dec. 28th Flowering in Boodyarn Forest.
leaves opposite, upper surface glabrous but underneath with short fine hairs lying flat. Sepals not reaching to where petals divide from tube. Flower large bright-blue both sides; on slender dark stem glabrous with few alternate bracts, stem very fine.. Several branches from base of plants Ovary 3mm, sepals erect 2mm. Ovary shape funnel-like so that it is difficult to say where ovary finishes & stem starts.
Bracts only about ¼ of way up stem from last opposite leaves, last ¾ of stem naked. probably henee name.

1990 Jan 20" Recorded & flowering on Hotham weekend.
1995 Dec 12" " " on Railway Reserve near Traralgon.

multicaulis

Wahlenbergia (tadgellii)

1985 Dec 28th Flowering in Mullangdung Forest.
Branched plant - strong erect branches with long transparent to white hairs that look like long thorns under microscope. Hairs mainly at base of branches. Lower leaves over 1" long but they become smaller up the branches. lower leaves have hairs similar to those on branches on both surfaces and mainly along midrib. Upper leaves have very few if any hairs on upper surface but more on the under surface. Flowers not very big and tube much shorter than sepals. As flower withers the whole of the flower is not longer than the sepals. Ovary [illegible], smooth with sepals as long as ovary. No dried capsule on specimen Flower white on outside. Branching occurs after main stem grows up above ground. larger leaves were below point of branching. leaves alternate - hast bract about ½ way up stem.

Stricta

Wahlenbergia (Consimilis) Tall. (Bluebell)

1966 Oct 8th Flowering opp Chester Park.
30th Wet day. Three native bees or wasps inside around centre. We thought they were sheltering but on a sunny day we saw two more in a flower.
1968 Aug 24th Flowering in RPM bush amongst young pines.
1972 Jan 30th " at Mt Hewitt. Article on Bluebells. Page 5 LV Naturalist May 1971.
1979 Nov 26th Flowering along railway at Flynn.
1986 Jan 20 " in Tgan Sth. Reserve. Stems few but can be branched. Bell blue above but white underneath. Leaves opp, can be right up to within a couple of inches of flower Stem glaborous. Ovary very tiny and shorter than short spreading sepals. Leaves can be in 3s with one big one in middle, two much smaller little ones, one on either side. Flower quite big 2cm across, lobes broad- more than ½ as broad as long.
1994 Nov 1 Flowering in Casuarina Reserve Fulham
1995 Oct 28th " " Wonthaggi Heathlands
1997 Jan 18th " " Livingstone Ck. Track near Omeo.
2000 Dec 3rd " " Sweetwater Ck. Reserve.
2001 ~~Dec~~ Nov 3 " " Newborough bush.

* Watsonia meriana Bulbil Watsonia

1995 Apr 12th Drouin Water Reserve

Westringia crassifolia

1973 Boyd 44. Flowering in Whipstick. Leaves in whorls of 3 or 4 widely spaced, leaves flat, margins incurved, dark green varying in size from ½" to ¾". Flowers in 2s or 3s from each whorl towards the top of the branch. Calyx lobes almost as long as floral tube. Stems calyx & petals all with short fine hairs rather close together. Leaves with same short fine hairs be more widely spaced. Petals purple with only about 6 dots of red in centre bottom flower. Inside of flower with long white hairs. Stems with 4 ridges.

Westringia eremicola

1973 Sept 3 Flowering in whipstick but not many flowers yet. leaves in 3s flowers axillary with up to 4 flowers at leaf bases. Flowers pale purple dotted with deep red. Petals 2 joined entire length other three joined about ⅓ length. Calyx 5 lobed lobes sharply pointed not quite as long as floral tube.

1999 Jan 23rd Flowering an Gelantipy weekend. Identified from specimen brought back.

Westringia Cilabra — Violet Westringia

1966 Sept 17th Flowering in Rosedale Reserve. Just one flower open in each spike. Branches appear red, leaves inconspicuous.

This specimen believed to be Prostanthera Denticulata

1959 Sept 16th Flowers on this shrub similar to mint-bush flowers but calyx has 5 teeth, not 2-lobed as in mint-bushes. Leaves oblong pointed at both ends app. 1cm long mostly in threes around branchlets in our specimen, rough to touch from uneven surface of leaf. Flowers at branch ends, pale mauve to almost white with orange spots. Growing from road on the way down from Mt Elizabeth.

Westringia senifolia — Alpine Westringia

1990 Jan 6 Flowering on plain to Dicksons Falls at Mt Buffalo.

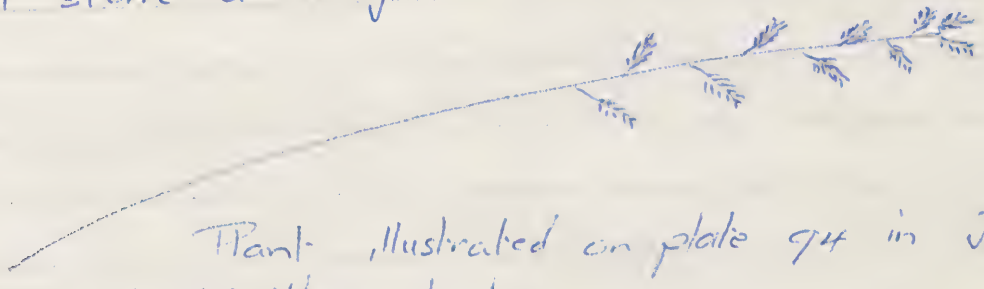
Wilsonia backhousei — Narrow-leaf Wilsonia

1978 Oct 29th — Flowering in the salt marsh near the causeway at Hochs Sport. Leaves fleshy about 1/4" long & 1/16th wide alternate. Flowers cream with long torus petals spreading at end. Flowers singly from leaf bases, about 1/4" long. Looks a bit like a stackhousia flower. Plants about 2" high, woody stems.

1996 Oct 12 — Growing at Paradise Beach near 2nd pipeline in N.P.

Wilsonia humilis — Silky Wilsonia

1987 Oct 18 Growing in damp area at Golden Beach. Identification verified by Jean Galbraith. Plants we saw were just single stems with small alternate branches up the main stem. Whole plant has greyish or silky appearance. Leaves opposite, overlapping the pair above. Leaves quite minute - appr 3 mm long. Main stem appr. 8" high and erect but certainly joined to next stem underground



Plant illustrated on plate 94 in Jean Galbraith's Wildflower book.
I was surprised the genera belonged to the Convolvulaceae tribe; but then we have not seen the flower. (Flowers white)

1996 Oct 12 Growing at Paradise Beach near 2nd pipeline in N.P.

Wittsteenia Vaccinacea. Baw Baw Berry

1967 Feb 6th Finished flowering at Erica but the berries commencing to form.

1968 Jan 18th Flowering at Baw Baw. Procumbent plant or shrub with oval leaves. Fruit a white berry with remains of calyx on end. Could change color as matures. Flowers red-tinted green bells. stalked. Flowers not very conspicuous. Usually growing at base of tree.

1969 Nov 23rd Berries forming on plants on Mt Baw Baw. However as we came down lower we found plants in flower.

1971 Jan 17th Flowering in gully just before last final climb to Mt Useful. Mrs Lyndon found the plant. This is new record for this plant as it is only recorded for Erica, Baw Baw & Bogong.

1972 Feb. This plant growing at Mt. St. Gwinear.

1973 Jan 26th Flowering at Mt Baw Baw.

1994 Jan 16 Growing on Mt. St. Gwinear. & Mt. Erica.

Wurmbea. dioica.

Anguillaria Dioica (Early Nancy)

1966 Sept 9 Flowering along Clarke's Rd.
1967 Aug. 19th " " Railway line near Princes Highway near Cootamundra Wattle. (which was almost finished flowering the wattle.)
Sept 24 Flowering at bottom of Matingley Hill
Oct 22nd " " Clark's Rd.
1968 Sept 22nd " " Shingle Ck Reserve.
Oct 6th " ~~Cochrane's~~ Rallignee 5th Rd.
27th " at Reed's Rd Corner.
Nov 10th " Clark's Rd
1969 Aug 16th Flowering at Wilson's Prom.
Sept 4th Still " " "
13 Flowering at Longford.
Oct 4th " " Burgoin's Gap.
1970 Sept 14th " along roadside of Longford.
25 " among pines in Longford area. Many plants in this area had dark purple on the backs of the petals & so did not look like Early Nancy in bud.
1971 Aug 28th Flowering at Wild Flower Sanctuary and surrounding areas at Stawell & in the Grampians during rest of week.
1972 Aug 27th Flowering at Mt Arapiles.
1976 Oct 11th Recorded with Dr. Parsons for S.53. + T16
1994 Oct 30 " in Dawson R'way Reserve
2006 Sept 30 Flowering on Senenis Track.

* Xanthium spinosum Bathurst Burr.

2800 Apr 11" Crossing of Heyfield Wetland.

Xanthorrhoea Australis (Austral)

1967 Sept 23rd Found these plants just out of Ormandale. (not in flower).

1969 Sept 29th Flowering at Ellisdale.

1972 Sept 5th " at Rosedale

1994 Nov 9th Growing on Keola weekend -

2003 June In 4th ed. of Census it is stated this species in sensu of Flora of Vic Vol. 2 can be either X australis or X glauca subsp angustifolia

Xanthorrhoea Minor (Small Grass Tree)

1966 25 Sept Flowering at Cowwar
1967 1st Jan Still flowering in T'gon 5th Reserve.
1 Oct In bud along Sunday Rd.
13th " Flowering at Habertouche
15th Nov. " " Callignee Rd.
1968 June 9th In bud along Rosedale Road.
Sept 28th Flowering near Dutson Downs.
Oct 27th In bud in T'gon 5th Res.
1969 Jan 1st Flowering Andersons Track
May 18th " at Killung South.
1980 Feb. Dr Willis contacted J. Galbraith about plants at Gellibrandale & referred to them as X. resinosa. Miss Galbraith sent him one of our photos of the Gellibrand plants & told him all that had happened. Now we await his reply. – All very interesting. See pages in this book of letters already received
1994 Nov 26th Flowering in APM. block Stradbroke Sth. Gipp. Hway
Nov 1. " " Casuarina Reserve. Fulham
1995 Oct 28th " " Wonthaggi Heathlands.
Dec 12th Growing on Railway Reserve near Traralgon.
2000 " 3rd Flowering in Sweetwater Ck. Reserve.
2001 Aug 27th Growing in Newborough bush.
Dec 1 " " " Sandy Ck.
2002 Nov 23rd " " Holey Plains State Park.
2004 Apr 3 " " Colley's Rd. Block.
2006 Sept 30th " " Senenis Track
Nov 4 " " Springsure area.
14 Flowering profusely in Moondarra State Park after big fire last summer.

Xanthorrhoea resinosa (= X. resinifera)

1979 Nov The plants at Giffard were identified in 1980(?) by Dr. Willis as the above species. Ms. Lee of Sydney did not have any flowers, certainly did not see the multiple heads.

Cliff Beauglehole has recorded X resinosa, from the Prom after we told him where to look on White Road.

Dr. Willis says the same plants grow on the South Gippsland Highway near Gellion Run.

1996 Nov 5th Plants growing at Giffard Rifle Range.

Mrs. O. Thompson
P.O. Box 644
TRARALGON 3844

2nd. August, 1979

Dear Sir / Madam,

We have found some Grasstrees at Gifford on the rifle range that look different to us. Unfortunately they have no buds as yet that we could find - only spent flowers. The growth habit was what first attracted our attention from the car. The plants consist of many heads in what appears to be one plant. The older plants had as many as 30 heads tightly together and were over 6 ft. across altogether. Last season the plants had many flowers. It is quite common to see 6 flower stalks from one big plant. Most of the plants appeared to have no trunk above ground; but some had up to 6 inches of trunk. It appeared to be one trunk per group of heads but as it was so short and the plants so wide it was difficult to get under the leaves all around. What trunk there was had very stiff protrusions that had been the ends of the leaves and they protruded about 2". The very young plants just had a single head.

The leaves have raised ridge on one side and were very supple - not relatively stiff and hard like X. australis. It was easy to pull the leaves from the base without breaking off the wider base section. With X. australia we could not pull the leaves off but had to cut them and could not get to the base section and get it off. X. australis did not grow in the area; we had to go to Willung South for our comparisons.

The plants were growing in flat depressions on sandy soil and were quite dense over the area, to the extent that the leaves of one plant were touching the next plant.

The flower spike, in most cases, is about 1/2 the length of the thick stalk that holds it (that is the section above the leaves, we did not look to see how far down amongst the leaves the stalk went).

We are wondering if it is X. resinosa but are doubtful as it is so far out of its usual territory.

We will go back to the area later when we hope they may be in flower. If there is any other information that may help in the identification, that is besides the flowers, we will try to obtain it if you let us know.

Thanking you in anticipation

Identified by Mrs Lee, Sydney herbarium, as Xanthorrhea minor in arborescent form.

DEPARTMENT OF CROWN LANDS AND SURVEY

PLEASE ADDRESS
ALL CORRESPONDENCE
TO THE DIRECTOR

TELEPHONES—
63 7030
63 8935

REF.....

VICTORIA

ROYAL BOTANIC GARDENS
AND
NATIONAL HERBARIUM

BIRDWOOD AVENUE
SOUTH YARRA, VICTORIA
AUSTRALIA, 3141

13 - 8 - 19 79

Dear Bon and Ellie,

I am quite sure you have found P. resinosa - it keys out quite well to that species and it matches herbarium specimens. However in the case of a new record of this kind, particularly when I am not familiar with the species, I prefer to have the specimen checked by a specialist, and I am sending it to Sydney, to Alma Lee who has revised Xanthorrhoea. I will let you know when I get a reply.

Thank you for the P. terostylis grandiflora. Would you let me have the date of collection, and a brief description of the habitat? There is no great hurry, but it will make the collection much more valuable. I am working hard on Nicholls' collections of P. terostylis at present, preparing labels so the specimens can eventually be mounted. It will be a help in preparing information about distribution. There are actually quite a few interesting specimens here, which have not been incorporated

not examined since they were sent to us. The job of mounting these specimens will probably take a long time, as we are not getting the University students this summer, as we have in the past few years. They did an enormous amount of valuable work, and the mounting will now go on at a snail's pace.

Thank you also for the map of the Polymitus petecta locality. It is uncertain at present whether we will be able to do much field work in the coming season, so this is another activity which may unfortunately slow down. It will be a terrible shame if it can't proceed at a reasonable pace, because our collections are still far from complete and we rely on well planned field work to fill in the gaps.

That does sound rather gloomy doesn't it, but there is still hope while people like you can assist with field work and collecting.

With best wishes,

Yours sincerely,

Bruce Ellis.

DEPARTMENT OF CROWN LANDS AND SURVEY

PLEASE ADDRESS
ALL CORRESPONDENCE
TO THE DIRECTOR

TELEPHONES—
63 7030
63 8935

ROYAL BOTANIC GARDENS
AND
NATIONAL HERBARIUM

BIRDWOOD AVENUE
SOUTH YARRA, VICTORIA
AUSTRALIA, 3141

REF. 1683/79
TBM:GB

8th October, 19 79

File 5.2.69

Mrs. O. Thompson,
P.O. Box 644,
TRARALGON. 3844.

Dear Mrs. Thompson,

The Xanthorrhoea which you found at Giffard has been returned from Sydney Herbarium with the comment that it is X. minor, with the possibility that there could have been some hybridising with X. australis. A copy of the letter is enclosed. I think you will find the remarks about habit of growth and habitat quite interesting.

Yours faithfully,

(DR.) D.M. CHURCHILL
DIRECTOR AND GOVERNMENT
BOTANIST

Nov 1979

Ref. 1683/70 File 5:2:69.

Further to the Xanthorrhoea mentioned in the above correspondence we have returned to the Gifford area & had the pleasure of seeing about 2 acres of the Xanthorrhoea in flower. It was a very inspiring sight. We collected specimens of the flowers to complete the records for these plants. The complete spike size varied from 4 ft to 12 ft. although the majority were about 8 ft.* Obviously the plants need a fire to promote flowering as the ~~first~~ area we found previously has had no flowers this season but this new area which is in bush across the road has obviously had a fire through it in the last 12 months. Once again the plants were in a depression with reeds & rushes. The majority of plants had between 6 and 12 flowering spikes but some had as many as 18 spikes. It is certainly an unusual form of Xanthorrhoea in this part of Gippsland.

(* the flower [illegible] by [illegible] length of the spike complete spi[illegible])

We took some print photos of the area. Would you like one if they come out?

Specimen enclosed.

~~Dr. Churchill~~
~~Royal Director & Government Botanist~~
The Director
Royal Botanic Gardens & National Herbarium
Birdwood Avenue
South Yarra 3141.

P.S. Jean Galbraith thinks it is a hybrid of X. resinosa & X australis.

Dr Jim Willis says it is a form of X resinosa & may ultimately be a separate species.

Mrs. D. Thompson,
P.O. Box 644
Traralgon, 3844

31st. December, 1979.

Director,
Royal Botanic Gardens & National Herbarium,
Birdwood Avenure,
SOUTH YARRA. 3141

Dear Sir,

Ref. 2096/79 File 5.2.69

Enclosed is the print of Xanthorrhoea plants at Giffard. Also in this parcel is a flower from the Xanthorrhoea minor plants Mrs. Lee mentioned as growing at Gelliondale. We were down there between Christmas and New Year and found them in flower. However, to me, the flowers of these Xantherrhoea minor plants are different from the ones at Giffard. The Gelliondale flowers do not appear to be at all hairy while the flowers of the Giffard plants had quite a number of hairs on the tips of the bracts and the sepals.

I am also enclosing specimens of Thelynitra retecta as requested by Mr. Muir last January. This has been a very dry season in these parts, in fact the driest since 1967, and the orchids flowered sparingly and earlier. As the Lepidosperma plants in the swamp had grown considerably in the last 12 months the orc ids were much harder to find. I could only collect two stalks of spent flowers and one stalk with three buds not opened. We dug up the tuber of this plant, brought it home and put it in water. As each of the flowers opened, at least 2 days apart, I picked the flowers and pressed them. I hope this was a correct proceedure. I will keep the tuber wet until I am ready to post this parcel in the hope that you may be able to grow it. I also recorded the small swamp plants that were growing near the orchids to give you some idea of the kind of swamp they are growing in. The following is a list of these plants:-

Selaginella uliginosa
Centaurium minus
Villarsia exaltata
" reniformis
Gonocarpus micranthus
Goodenia humilis
Drosera spathulata
Scaevola hookeri
Marus pumilio
Hydrocotyle hirta

and another plant new to me that I think may be Hydrocotyle muscosa. Could you please identify the plant around the tuber.

I am sorry we could not get better specimens for you but think the dry spring may have something to do with it.

Yours faithfully,

5-2-51 707

Royal Botanic Gardens and National Herbarium Sydney

NEW SOUTH WALES

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

POSTAL ADDRESS:
ROYAL BOTANIC GARDENS
SYDNEY. 2000
AUSTRALIA.

TELEPHONE: 27 4347

IN REPLY PLEASE QUOTE: AL:PTP

Dr D.M. Churchill,
Director & Government Botanist,
Royal Botanic Gardens & National Herbarium,
Birdwood Avenue,
SOUTH YARRA. VICTORIA. 3141

12th September, 1979

Dear Dr Churchill,

Mrs Lee considers that the Xanthorrhoea specimen from Giffard, coll. O. & B. Thompson, which you sent recently (TBM:DPJ 1374/79 5.2.51) is X. minor, apparently not uncommon in the area. Unfortunately there is no indication of the complete spike size in the notes submitted (only that it is ½ x scape length), but if the Giffard plants are much longer in spike than usual [(2.5-) 5-12 (-22) cm long] evidence of arborescence should be looked for and some introgression of X. australis suspected. This has been seen in a community on the Gelliondale Run, E. of Yarram. The many-headed nature of the plants described is quite common in X. minor, and so is some pubescence of the bracts as shown here (but not as dense as the velvety tomentum of X. resinosa). In the Sydney area, according to the late Obed Evans, the small-spiked X. minor occurred usually on clay or lateritic soils, and the "depressions on sandy soils" at Giffard may provide a higher water content comparable with that of heavier soils.

Your specimen is being returned under separate cover.

Yours sincerely,

(Dr) L.A.S. Johnson
Director.
per AL.

RECEIVED
21 SEP 1979

BM.

900

Xanthosia Dissecta (Cut-leaf Parsley)

1966 Nov 13th Flowering on Gormandale Road and in bulldozed paddock.

1971 Nov 12th Flowering at Reid's Corner.

1978 Jan. Plus X. leiophylla. Klatt ex Muell. [C Brouglehole & R. Parson]

1994 Nov 26th Plants in APM block Stradbroke Sth. Gipp. H'way.

2000 Dec 3rd " " Sweetwater Creek Reserve. See remarks under X. leiophylla 16/1/01.

2001 Aug 27th Growing in Newborough bush

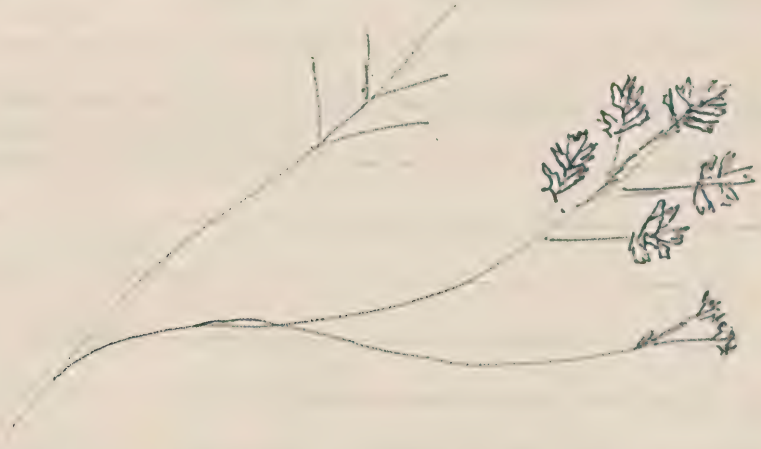
2002 Nov 23rd " " Holey Plains State Park

2006 Sept 30th " " Senenis Track

Nov 4 " " Springsure area.

Xanthosia leiophylla Xanthosia.

2000 Dec 3rd Specimen collected at Sweetwater Creek Reserve. It differed from Xanthosia dissecta in that it was more upright & I felt the leaves were different. On inspection the leaf-stem was longer & branched & in our specimen had 5 divisions not 3. The seeds were in two groups of 3 branched from the one stalk so I was not sure it was not X. dissecta. I sent it to Dr. Parsons & had it confirmed as X. leiophylla. It is apparently only the 2nd record of this plant east of Melbourne. The other record is from the Prom. The leafes of X. dissecta appear (from the illustration) to come from a central point (All basal?). P268 Flora of Vic Vol 4.



16. Jan 2001 Received letter from Bob Parsons enclosing letter from Neville Walsh stating above specimen he thinks is X. dissecta. Main reliable character (not mentioned in key) seems to be the glabrous (X. dissecta) vs pubescent (X. leiophylla) nectary. letter overpage.

15-i-01 / Bob: Well, well. I remember Neville S. complaining about how bad the Fl. Vic. key is! Nice that your specimen taught us all something tho'. Cheers Bob.

Bob

Thanks for the specimens.

I think Thompson 219 is Xanthosia dissecta rather than X. leiophylla although I admit the key ± sends it there. The most reliable character (not mentioned in key) seems to be the glabrous (X. dissecta) vs. pubescent (X. leiophylla) nectary.

There's some pretty cruel governances of taxonomic rank in the Apiaceae, ones i'd like to dissociate myself from.

Have a (pleasant) break.

Neville.

N.G. Walsh
National Herbarium
of Victoria
Royal Botanic Gardens
Birdwood Ave
South Yarra, Vic. 3141

Xanthosia Pilosa

1967 April 1st. Flowering near Golden Beach turn-off.
Yellow flower - small, hairy salt leaves.

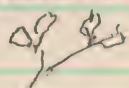
1968 ~~Nov. 5~~ Sept 28th Plants found again at above spot.

1970 Sept 5 lots of plants flowering in new area at Rosedale. Identified by Miss Galbraith.

2000 Oct 4th Flowering at Haberlache.

Xanthosia tridentata Hill Xanthosia.

1991 Nov. 23rd Flowering in Bunyip S.P. up the forest road in Haberfauehe Forest near Ryans Creek. when club combined with Botany Group of FNCV. Plant spreading on the ground about 6" high. Leaves with short stems broadest at tip with 3 lobes or teeth ± 1cm long. Underside hairy & whitish; upper surface sparsely hairy, margins revolute.

Flowers greenish in pairs on common peduncle with one pedicle long than the other.  Flower appears to have 4 bracts (hairy) & then up to 3 flowers with 4 sepals & hooded petals & conspicuous anthers. (Whole very tiny & hard to see.

Stems with dense long hairs or stipules with enlarged base

1994 May 1. Plants growing on Husten's property near Darlamurla.

Xerochrysum bracteatum
(Bracteantha bracteata)

Helichrysum Bracteatum) (Golden)

1967 June 19th Found flowering along Tambula – Bombala Rd. This was a branch shrub about 2'6" to 3' high. Lovely golden yellow flowers about 3 cm across, centre real orange, outside bracts golden brown. Stems hairy, plants rather dry.

1969 Feb 16th Flowering swamp at Rosedale.
Nov 2nd " at Briagalong. These plants were about 2'6" high a fairly large flowers with entire leaves fairly big.

1970 Jan 2nd Flowering at Tamboritha Saddle. Specimens were short 1'-1'6" high much branched with small ½" flowers
24th Flowering on Bruthern Road. Much branched tall plant with 1½ flowers.
Nov 25th Flowering at Briagalong.

1971 Sept 3rd " at Mt Drapiles. Flowers small and plants much branched + leaves sparse, plants about 1'6" high.

1972 July 22 Plant flowering in Fairy Dell.

1975 Jan. Also another species H. viscosum
[C. Beaugle hole & R. Parsons]

1991 Jan 26 Plant flowering along Tulloch Ard Rd near Gelantipy.

1992 Jan 25 Flowering along road from Angler's Rest to Buckety Plain. James Turner says these specimens are H. viscosum.

1993 Jan 31 Flowering in Errinundra N.P. but here we also were shown a lovely colour variation with real copper tonings. Ollie photographed.

1994 Nov 9th Flowering on Nicola weekend.

1995 Oct 29th " along Treestone Creek Rd before Blue Pool Reserve.

1997 Jan 18th Flowering on Livingstone Ck near Omeo.

2003 June Name change in 2nd ed. of Census

1998 In Muelleria Vol 11 1998 key to 5 species - B. subundulata, B. viscosa B. bracteata, B. papillosa and the new species B. palustris recorded for around Bairnsdale.

2005 Jan 24. Members brought back specimen from the Errinundra weekend.

Xerochrysum ~~bracti~~ subundulatum (Bracteantha subundulata)

(Helichrysum acuminatum) Orange ~~Flame~~

1970 Jan 24th Flowering along Buchan Creek & at Rocky Plains at Wulgulmerang. About 1ft high, bright orange flowers stem not branched except for flowers. Stem dark brown, woolly, leaves from about 2" long slightly toothed towards tip. Bracts very many in about 6 rows each tapering to very fine point. Centre about ½" across, flower about 5 cm across.

1971 Jan 17th These plants were all in bud at Mt Useful but only a few were yet opened out. It will be a real mass of color when they open up.

Jan 30th Plants in bud at Howitt Springs & Mt Howitt Hike.

1973 Jan 26th Plants in bud at Mt Baw Baw although we did find one in flowers.

1992 Jan 25th Flowering near Buckety Plains.

1993 Jan 30 " in Errinundra N.P. James Turner said the variety in this area has a Hsp. aff accuminatum only they both now have different names.

1995 Jan 15th Flowering on Dargo weekend.

1996 Jan 20th " " Mt Loch Track - Mt Hotham Weekend.

1998 Illuelleria There is another species B. palustris described with key for all S.E. Australian species of Bracteantha. B. palustris is found at altitudes below 500m while B. subundulata is restricted to alpine & subalpine zones above a. 900 m. For other differences see article on P. 97.

2003 June Name change to X. bracteatum

1998 See note under X. bracteatum

(Bracteantha viscosa) Xerochrysum viscosum

(Helichrysum viscosum) Sticky Everlasting

1992 Jan 25th Flowering along road from Angler's Rest to Buckety Plain. James Turner identified it but I cannot find description showing how this plant differs from H. bracteatum. It is mentioned in Willis but no description. Cliff Beauglehole records it for this area.

Plants last year under H. bracteatum could also have been this plant.

1993 Jan 28th Flowering in Errinundra N.P.

Description in Flora of N.S.W. Vol. 3 Page 236.

Specimen suits description exactly.

2003 June Name change in 2nd Census.

1998 See note under X. bracteatum.

Xyris Gracilis (Yellow-eye)

1967 Jan 14th. Flowering in profusion ·8mls from Early Rd. along Anderson's Track. Usually 3 petals with wavy edges, very spectacular, flowers twisting after flowering. ~~Max form~~ Short + wavy stems.

1969 Jan' Flowering along Anderson's Track.

1994 Nov 26 " in APM block Stradbroke Sth. Gipp. H'way.

Xyris Operculata (Tall Yellow-eye)

1967 Jan 14th. Flowering .8mls from Early Rd along Anderson's track. Tall + straight stems.

Nov 21st Flowering as above.

1968 Dec 29th " track near Walhalla Road.

1970 Jan 18th " along Anderson's Track.

W

Yearly Weather

Total Rainfall | 1st Real Break in Autumn

1966 Some very heavy frosts during winter.
Much drizzly weather early Spring.

1967 Very dry 1st 3 months. Dry year no irrigation after Xmas.

1968 Very dry drought. 290 pts first three months. First Autumn showers end of March. Heat wave February.
Spring very good. Rains through to December

1969 Up to March very good season with intermittant rain. quite heavy. Hot periods of up to fortnight at time.

Zieria arborescens.

1968 Nov 21st Flowering at Bulga Park. Identified by Miss Galbraith

1969 Dec 15th Flowering along Jeeralang Rd.

1970 Nov 23 " " at Lilly-Pilly Gully.

1978 Jan Possibly includes another species from the Grampians.

[C. Beauglehole & R. Parsons]

1994 Nov 9th Recorded on Koala weekend.

1997 Oct 25th Flowering at Labertouche.

Nothofagus cunninghamii (Myrtle-beech)

1968 Nov 23rd Beech trees flowering - flowers small and tan colour & blend in with leaves so as to be not noticeable. Under glass they are lovely flowers see C.U. slide. Mr Monelli also found orange fungi that grows on this tree.

Zieria cytisoides

1991 Oct. 12th. Plant in bud in Mr Hedrick

1994 Oct 5th Flowering at Munjara Camp Glenmaggie.

Zieria smithii

1994 Oct 9th Flowering on Treeslune Creek Road up past Briagalong towards Freames Road.
Identified by James Turner.
According to Flora of N.S.W. this species differs from *Z. arborescens* by the stellate hairs on the midvein of undersurface of leaflets. Also bracts are small and not disciduous.

Zieria Veronicea

1970 Sept 26. Flowering on the Sale-Yarram Road. This plant is a small ~~bush~~ bush about 18" high. Flowers blush pink, either sessile or with very short stalks so that flowers are down among the leaves. Flowers do not open very wide. Leaves are blue green, lemon scented. This area is an unusual area for this plant although Mr Cane says there are other plants in the district.

1972 Aug 28th Flowering in Little Desert.

1987 Arranged with APM to preserve area on Nichols Road where there is quite a profusion of these plants. Neville Scarlet suggests that the Gippsland form may be another species from the Little Desert form.

1989 Oct 14th Peg brought back specimen from Little Desert. Leaves densely hairy & very recurved almost back to mid-vein, blue green with appearance of linear. Flower deep purplish pink in leafy cluster at top of branch with leaves past the flowers. Plants taller than Gippsland plants & much deeper coloured flowers. Branches densely hairy. Flowers more tubular than Gippsland ones. Think leaves & flowers more closely together. Leaves too dry to have an aroma.

1990 Jan 8 Collected specimens to send to Dr Parsons. Plants were amongst plantation eucalypts and in seed.